



ANNUAL
REPORT
2022



About this report

Annual Report 2022

This report is a summary of our operations, activities, performance and financial position as at 30 June 2022.

Our 2022 Annual Reporting Suite

You can view all the documents in our Annual Reporting Suite at www.south32.net, including:



Sustainable Development Report



Sustainability Databook



Corporate Governance Statement



Modern Slavery Statement



Tax Transparency and Payments to Governments Report

About this report:

This Annual Report is a summary of the operations, activities and performance of South32 Limited (ABN 84 093 732 597) and its controlled entities and joint arrangements⁽¹⁾ for the year ended 30 June 2022 and its financial position as at 30 June 2022.

South32 Limited is the parent company of the South32 group of companies. In this report, unless otherwise stated, references to South32, the South32 Group, the Group, we, us, our and similar expressions refer to South32 Limited and its controlled entities and South32-operated joint arrangements. In addition to South32's wholly owned entities and South32-operated joint arrangements, this report refers to operations that are not wholly owned or operated by South32. This report also refers to commodities 'we produce' and commodities in 'our portfolio', which include commodities such as bauxite, alumina, aluminum and copper that may form part of, or be produced by, entities not operated by South32. References in this report to 'our operations', or commodities 'we produce' or in 'our portfolio', should be read in this context.

Unless otherwise stated, financial information in this report is presented on the basis described in the Notes to the Financial Statements - Basis of preparation on page 109, and monetary amounts in this report are expressed in US dollars.

Unless otherwise stated, metrics describing sustainability and HSEC performance in this report apply to 'operated operations' that have been wholly owned and operated by South32, or that have been operated by South32 in a joint arrangement, from 1 July 2021 to 30 June 2022.

Forward-looking statements

Forward-looking statements in this report reflect South32's expectations at the date of this report, and are not guarantees or predictions of future performance or statements of fact. They involve known and unknown risks and uncertainties, which may cause actual outcomes and developments to differ materially from those expressed in such statements. For further information regarding South32's approach to risk, see page 26.

South32 makes no representation, assurance or guarantee as to the accuracy, completeness or likelihood of fulfilment of any forward-looking statement, any outcomes expressed or implied in any forward-looking statement or any assumptions on which a forward-looking statement is based. Except as required by applicable laws or regulations, South32 does not undertake to publicly update or review any forward-looking statements. Past performance cannot be relied on as a guide to future performance. South32 cautions against reliance on any forward-looking statements or guidance, particularly in light of the current economic climate and the ongoing impact of COVID-19.

Non-IFRS

This report includes non-IFRS financial measures, including underlying measures of earnings, effective tax rate, returns on invested capital, cash flow and net debt. Non-IFRS measures should not be considered as alternatives to an IFRS measure of profitability, financial performance or liquidity. For an explanation of how South32 uses non-IFRS measures, see page 36. The definitions of individual non-IFRS measures used in this report are set out in the glossary on page 185.

(1) In this report, references to 'joint arrangements' mean operations that are not wholly owned by South32, such as joint ventures and joint operations. Joint arrangements are classified in accordance with IFRS 11 Joint Arrangements.

Cover: A geotechnical engineer at our Cannington operation in Australia.

Below: Anindilyakwa people on Grootte Eylandt in Australia's Northern Territory.

ACKNOWLEDGEMENT

We acknowledge and pay our respects to the Indigenous, Traditional and Tribal Peoples of the lands, waters and territories on which South32 is located and where we conduct our business around the world.

We respect and acknowledge the unique cultural and spiritual relationships that Indigenous, Traditional and Tribal Peoples have to the lands, waters and territories, and their rich contribution to society.

In the spirit of respect and reconciliation, we will continue to support initiatives that strengthen culture and ways of life so that their legacy continues and extends to future generations.



Contents

OPERATING AND FINANCIAL REVIEW

About this report	IFC
About us	2
Year in review	3
From the Chair	4
From the CEO	6
South32 at a glance	8
Our business model	10
Our commodities	12
Our sustainability approach	14
Our impact	16
Our strategy	18
Progress against our strategy	20
Risk management	26
Financial and operational performance summary	36

GOVERNANCE

Board of Directors	64
Directors' report	68
Lead Team	72
Remuneration report	74

FINANCIAL REPORT

Consolidated income statement	104
Consolidated statement of comprehensive income	105
Consolidated balance sheet	106
Consolidated cash flow statement	107
Consolidated statement of changes in equity	108
Notes to the financial statements	109
Directors' declaration	166
Lead auditor's independence declaration	167
Independent auditor's report	168

RESOURCES AND RESERVES

Information	173
Competent persons	174
Accompanying tables	175

INFORMATION

Shareholder information	181
Glossary of terms and abbreviations	184
Corporate directory	189



SOUTH32 IS A GLOBALLY DIVERSIFIED MINING AND METALS COMPANY

We produce commodities including bauxite, alumina, aluminium, copper, silver, lead, zinc, nickel, metallurgical coal and manganese from our operations in Australia, southern Africa and South America. With a focus on growing our base metals exposure, we also have two development options in North America and several partnerships with junior explorers around the world.

Making a difference

Our **purpose** is to make a difference by developing natural resources, improving people's lives now and for generations to come. We are trusted by our owners and partners to realise the potential of their resources.

[Learn more about **how we improve people's lives** on page 16.](#)

Optimise | Unlock | Identify

Our purpose is underpinned by a simple **strategy** which is focused on optimising the performance of our operations, unlocking their potential and identifying new opportunities to create value for all of our stakeholders.

[Learn more about **our strategy** on page 18.](#)

Care | Trust | Togetherness | Excellence

While our strategy outlines what we do to achieve our purpose, our **values** of care, trust, togetherness and excellence guide how we do it. Every day, our values shape the way we behave and the standards we set for ourselves and others.

[Learn more about **our people** in our Sustainable Development Report at \[www.south32.net\]\(http://www.south32.net\)](#)



OUR PERFORMANCE AT A GLANCE

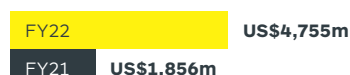
Total Recordable Injury Frequency (TRIF)⁽¹⁾

5.3



Underlying EBITDA⁽⁴⁾

US\$4,755m



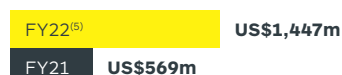
Community Investment⁽²⁾

US\$31.1m



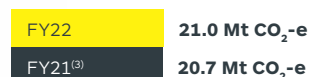
Payment of taxes and royalties

US\$1,447m



Operational greenhouse gas (GHG) emissions

21.0 Mt CO₂-e



Shareholder returns⁽⁶⁾

US\$1,320m



Highlights



- › Delivered record earnings and cash flow as our stable operating performance and recent portfolio improvements enabled us to capitalise on the significant tailwind of commodity prices.
- › Delivered record shareholder returns in respect of FY22 equal to 10 per cent of our market capitalisation⁽⁷⁾.
- › Achieved record production at Worsley Alumina, record operating margins at Hillside Aluminium and Mozal Aluminium, exceeded production guidance at Cannington and achieved a 22 per cent increase in nickel production at Cerro Matoso.
- › Made significant progress transforming our portfolio, increasing our exposure to the metals critical to a low-carbon future by adding copper and doubling our low-carbon aluminium capacity⁽⁸⁾.
- › Completed a pre-feasibility study for the Taylor Deposit and advanced study work for the Clark Deposit at our Hermosa project.
- › Set a new goal of net zero Scope 3 GHG emissions by 2050⁽⁸⁾.

(1) TRIF baseline was adjusted at end FY21 to account for the removal of South Africa Energy Coal (SAEC) and Tasmanian Electro Metallurgical Company (TEMCO) from the portfolio.

(2) Community investment consists of direct investment, in-kind support and administrative costs.

(3) FY21 emissions adjusted to exclude GHG emissions from SAEC and TEMCO, which were divested in FY21.

(4) This is a non-IFRS measure. For an explanation of how South32 uses non-IFRS measures, see page 36.

(5) Includes Brazil Alumina, Brazil Aluminium and Sierra Gorda.

(6) In respect of FY22. Includes fully franked dividends (interim ordinary US\$405 million, final ordinary US\$648 million and final special US\$139 million) and on-market share buy-back of US\$128 million.

(7) Market capitalisation as at 19 August 2022. Calculated as the number of shares on issue (4,628 million), the South32 closing share price A\$4.19, and an AUD:USD exchange rate of 0.69.

(8) In this report we use particular terminology in relation to climate change. Definitions of the terms 'goal', 'target' and 'low-carbon' when used in the context of climate change are set out in the Glossary of terms and abbreviations on pages 186 and 187 of this report.

POSITIONING OUR BUSINESS FOR THE FUTURE

This year we made significant progress reshaping our portfolio to increase our exposure to commodities critical to a low-carbon future. Despite the challenges of COVID-19 continuing in many locations, we have maintained our stable operating performance, continued to support our communities, and finished the year in a strong financial position.

While there is much to be proud of, it saddens me to again report the loss of a colleague. In November 2021 Mr Desmin Mienies, a contractor who was working at our Wessels Mine in South Africa, lost his life. On behalf of the Board, I express my deepest sympathies to his family, friends and colleagues. The Board has reviewed the findings of the investigation following Mr Mienies' death and has been briefed on the steps taken to prevent a similar incident occurring in the future.

We all recognise that we must continue to improve our safety performance. It is a key focus for the Board, our Lead Team and our entire business. During the first half of FY22, we partnered with a leading safety

all of our work is undertaken in a way that is consistent with our values and Code of Business Conduct, we have taken learnings from recent reports into workplace misconduct and sexual harassment in our industry. These reports have informed our renewed efforts to identify and respond to the risk factors for harassment, just as we do for other safety risks.

At the heart of all of our work is the commitment to foster a culture where our people feel safe to speak up when they are the victim of, or witness, an incident of misconduct, whatever form it takes. The Board, working with the South32 Lead Team, sets the direction and tone for our workplace culture.

COVID-19 remained a challenge during the year, but following the global vaccination roll out, many of the countries where we operate have adapted to living with the virus. Notwithstanding this shift, our people have continued to follow controls designed to limit the spread of the virus in every location where we operate. The Board recognises the dedication of our people and appreciates the level of diligence that continues to be shown. As the world started to open up and travel became easier, the Board has been pleased to restart our program of site visits following a two-year pause, with visits to Hermosa, Worsley Alumina and Sierra Gorda.

We achieved strong realised prices for our commodities this year despite the prevailing global disruption caused by COVID-19, the tragic conflict in Ukraine, and rising global interest rates leading to heightened market volatility. Our operations performed well throughout the year and delivered Underlying earnings before interest, tax, depreciation and amortisation of US\$4.8 billion and free cash flow of US\$2.6 billion. The Group's statutory profit after tax increased to US\$2.7 billion.

We ended the financial year with a net cash balance of US\$538 million, having returned US\$1.3 billion to our shareholders. This included dividends totalling US\$1.2 billion and US\$128 million returned to shareholders as part of our ongoing capital management program. We further expanded our capital management program by US\$156 million to US\$2.3 billion, leaving US\$250 million to be returned by September 2023.

Our strong financial performance during FY22 and disciplined approach to capital allocation have supported investment in our business to improve our portfolio by increasing our exposure to the metals critical to a low-carbon

“
We accelerated work to improve our portfolio with the completion of several successful transactions. This transformational work would not have been possible without the strength of our underlying operating performance.”

consultant to undertake a review of our safety performance and identify areas for improvement. This formed the foundation for our Safety Improvement Program, a three-year global program of work designed to achieve a step-change in our safety performance. To better support our contractors, we have developed and rolled out our contractor management standard which defines performance requirements for managing our contractors.

During the year, we continued to give particular attention to supporting all our people to feel safe, included and respected at work. As we strive to ensure

We are working to embed inclusion and diversity into everything we do, through the implementation of our Inclusion and Diversity Action Plan. A critical component of the Action Plan was the development of our new internal inclusion and diversity standard, which sets minimum requirements for all elements of people management. From FY23, our measurable objectives will include actions targeted at improving inclusion and diversity in our workplace, in addition to measuring the representation of women and Black People in our workforce.



future. Our acquisition of an interest in the Sierra Gorda copper mine, increased shareholdings in Mozal Aluminium and the Mineração Rio do Norte (MRN) bauxite mine, and our decision to participate in the restart of the Alumar aluminium smelter in Brazil are significant steps for our business.

Responding to the imperative to address a changing climate was again a focus for South32. As we have long made clear, effectively addressing climate change will require a coordinated effort across governments, businesses, and communities, not only to transition to a low-carbon world in a just way, but also to adapt to the effects of climate change. Delivering on our climate change commitments is fundamental to our purpose – to make a difference by developing natural resources, improving people's lives now and for generations to come, where we are trusted by our owners and partners to realise the potential of their resources.

Within 12 months of South32 being established, we committed to supporting the objectives of the Paris Agreement and set a long-term goal to achieve net zero operational greenhouse gas emissions by 2050. Our first emissions reduction target was to keep our FY21 Scope 1 greenhouse gas emissions below our FY15 baseline, which we achieved.

In FY21, we stepped up our ambition by setting our medium-term target to halve our operational greenhouse gas emissions by 2035 from our FY21 baseline.

This year we have developed our Climate Change Action Plan, which will be the subject of a non-binding advisory resolution at our 2022 Annual General Meeting. The Plan describes the actions we are taking to address the risks and opportunities which climate change

presents, including producing the metals that support the transition to a low-carbon world, in a way that minimises our impact.

Recognising that we have a critical role to play in contributing to the decarbonisation of the value chain, in partnership with our customers and suppliers, the Plan includes a new goal of net zero Scope 3 greenhouse gas emissions by 2050.

Although we do not have direct operational control over activities in the value chain, we are committed to proactively collaborating with our suppliers, customers, industry peers and other value chain partners to make a meaningful contribution to the actions and innovations required to reduce these emissions.

Just as we have progressed our work to improve our environmental performance, the same is also true for our social performance. This year we evolved our approach to partnering with our communities to more clearly define how we can contribute societal value through our broader social contribution, including economic development planning, respecting human rights and our approach to cultural heritage.

Many of our operations and projects intersect areas of cultural significance and we understand we have a critical role to play in preserving cultural heritage. We believe it is important for cultural heritage and mining to co-exist and we are committed to working with Indigenous, Traditional and Tribal Peoples, governments and industry.

In Australia we support the Uluru Statement from the Heart as the pathway towards reconciliation put forward by Australia's First Nations people to enshrine the voice of First Nations into the Australian constitution. We support the opportunity

for all Australians to participate in this act of reconciliation.

In FY22, we completed cultural heritage reviews for our operations in the Americas and southern Africa, following a similar review of our Australian operations in the previous year. We worked on developing a more globally consistent approach to cultural heritage management across operations and regions, building on our existing cultural heritage management, governance and risk processes by leveraging technology platforms and increasing engagement.

Over the past seven years, South32 has undergone a major transformation, so much so that the South32 of today - a global, diversified producer of metals critical to a low-carbon future - is unrecognisable compared to where we started in 2015. During FY22 we accelerated work to improve our portfolio with the completion of several successful transactions. This transformational work would not have been possible without the strength of our underlying operating performance, which enabled us to capitalise on record conditions for many of our commodities.

On behalf of the Board, I would like to thank our shareholders for their ongoing support and reiterate our thanks to our people for their hard work and commitment.

Karen Wood
Chair

DELIVERING RESULTS IN UNCERTAIN TIMES

There is no doubt that global events continue to create a challenging environment for businesses and communities around the world. Despite these challenges, we look back on this year as a transformational time for our business as we continued to deliver on our strategy.

The most important commitment we make at South32 is that everyone goes home safe and well at the end of every shift. Unfortunately, this year we did not achieve that.

We are deeply saddened by the loss of one of our colleagues, Mr Desmin Mienies, a contractor who was fatally injured while undertaking electrical work at our Wessels Mine at South Africa Manganese in November 2021.

Our deepest sympathies are with Mr Mienies' family, friends and colleagues and we provided them with our support following the tragic incident. We undertook a detailed investigation to understand what happened, and the learnings from the investigation were shared across our organisation.

We recognise that we must continue to improve our safety performance and we are undertaking a significant amount of work to achieve this.

During the first half of FY22, we undertook a review of our safety performance and identified areas for improvement. This formed the foundation of our Safety Improvement Program, a three-year global program of work designed to achieve a step-change in our safety performance.

In FY22 we saw a reduction in recordable injuries and our Total Recordable Injury Frequency (TRIF) decreased by 12 per cent to 5.3 per million hours worked, but we did not meet our 20 per cent reduction target.

We are committed to working together safely, and continuously improving how we work by embedding safe and sustainable business practices every day.

Over the past two years we have also undertaken a substantial work program to improve contractor safety, given the important role contractors play in our business. The Contractor Management System of Work defines the key phases of the contractor management value chain and outlines the performance requirements for each phase, including how we support our contractors to undertake work safely.

“The past 12 months have been some of the most exciting in our history as we transformed our portfolio to focus on the metals critical to a low-carbon future.”

Just as we strive to create workplaces that are physically safe, we are working to create a culture where people feel safe and supported to speak up if they are experiencing any form of disrespectful behaviour, harassment or bullying. We manage sexual harassment as a material safety risk and have identified proactive and reactive control measures at a global level to mitigate this risk. More recently, our work has also been informed by broader industry learnings following the publication of key reports on this critical issue.

During the year, COVID-19 continued to affect our people, operations, projects and offices, and we experienced periods of elevated case numbers and restrictions across all of our locations. We continue to monitor employee and contractor infections and provide assistance to those affected.

The macroeconomic environment remained volatile and uncertain throughout the year. The continued uncertainty, as a result of geopolitical factors and supply chain disruptions, is expected to see inflationary pressures continue across our industry.

Against this backdrop we delivered record earnings and cashflow in FY22 as our stable operating performance and recent portfolio improvements enabled us to capitalise on the significant tailwinds of commodity prices.

Our operations delivered to revised plans, despite adverse impacts from weather and labour availability caused by COVID-19.



Looking ahead, we are well-positioned to navigate the immediate uncertainty. We have a strong balance sheet with net cash of US\$538 million after funding US\$1.5 billion of investments to improve our portfolio during the year. We expect our ongoing focus on cost management and an expected 14 per cent increase in copper equivalent production in the next financial year will mitigate industry-wide cost inflation.

Over the past seven years we have transformed our portfolio to focus on increasing our exposure to the metals critical to a low-carbon future.

This year we acquired a 45 per cent stake in the Sierra Gorda copper mine in Chile, providing immediate exposure to copper. We are growing our exposure to low-carbon aluminium, and during the year we increased our shareholding in the hydro-powered Mozal Aluminium smelter in Mozambique, bringing our shareholding to 63.7 per cent. We also achieved first production from the restart of the 100 per cent renewable powered Brazil Aluminium smelter. Through these investments, we expect to double our share of low-carbon aluminium production capacity.

We reached an important milestone for the Hermosa project with the completion of a pre-feasibility study for the zinc-lead-silver Taylor Deposit, the first development option at the project. We have now commenced a feasibility study ahead of a planned final investment decision in mid-CY23.

A scoping study for Hermosa's Clark Deposit has confirmed the potential for an integrated underground mining operation producing battery-grade manganese. Following the decision by the United States Government to invoke the Defense Production Act, supporting the production of critical metals including manganese, we are looking at different options to potentially accelerate the pre-feasibility study for the Clark Deposit. We also continue to invest to advance more than 25 active exploration programs around the world.

Subsequent to the end of the reporting period, we announced that we would not proceed with an investment in the Dendrobium Next Domain project at Illawarra Metallurgical Coal following our consideration of recently completed study work and extensive analysis of alternatives considered for the complex. With this decision, we will now focus on continuing to optimise Dendrobium and the broader Illawarra Metallurgical Coal complex to extend the mine life within approved domains.

Our approach to climate change is integrated with our strategy and is designed to protect and unlock long-term value, build operational resilience, and enhance our competitiveness in a low-carbon world.

Shareholders will be given the opportunity to provide feedback on our approach to climate change when our Climate Change Action Plan, which is part of our Sustainable Development Report, is the subject of a non-binding advisory resolution at our 2022 Annual General Meeting.

We continued to progress our decarbonisation initiatives in FY22, including the completion of pre-feasibility studies for the mud-washing efficiency project and gas conversion of coal-fired boilers at Worsley Alumina.

We have commenced the rollout of energy efficiency AP3XLE technology at the Hillside Aluminium smelter and completed studies on the technical feasibility of deploying renewables to power the smelter. We continue to work closely with the South African Government and other stakeholders to identify, develop and implement options to procure low-carbon electricity to power the smelter. We are also working with the New South Wales Government and CSIRO to construct a commercial pilot Ventilation Air Methane abatement facility at Illawarra Metallurgical Coal.

In addition, we updated our assessments of the physical risks of climate change across our operated assets.

Despite global challenges, the past 12 months have been some of the most exciting in our history and a transformational time for our business. I'd like to thank our people for their contribution to our success. It is a result of their efforts and resilience that we have been able to make great progress to become a truly global, diversified producer of the metals critical to a low-carbon future.

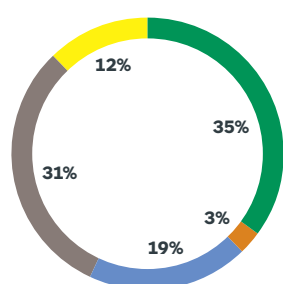
Graham Kerr
Chief Executive Officer

A DIVERSIFIED PORTFOLIO WITH A BIAS TO BASE METALS

- Operated interest/share
- Non-operated interest/share
- Development option
- Exploration program
- Office

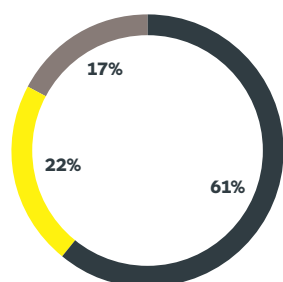
FY22 Key Commodity Underlying EBITDA

US\$4.9b⁽¹⁾



By Commodity

- Aluminium value chain
- Copper
- Base and precious metals
- Metallurgical coal
- Manganese ore



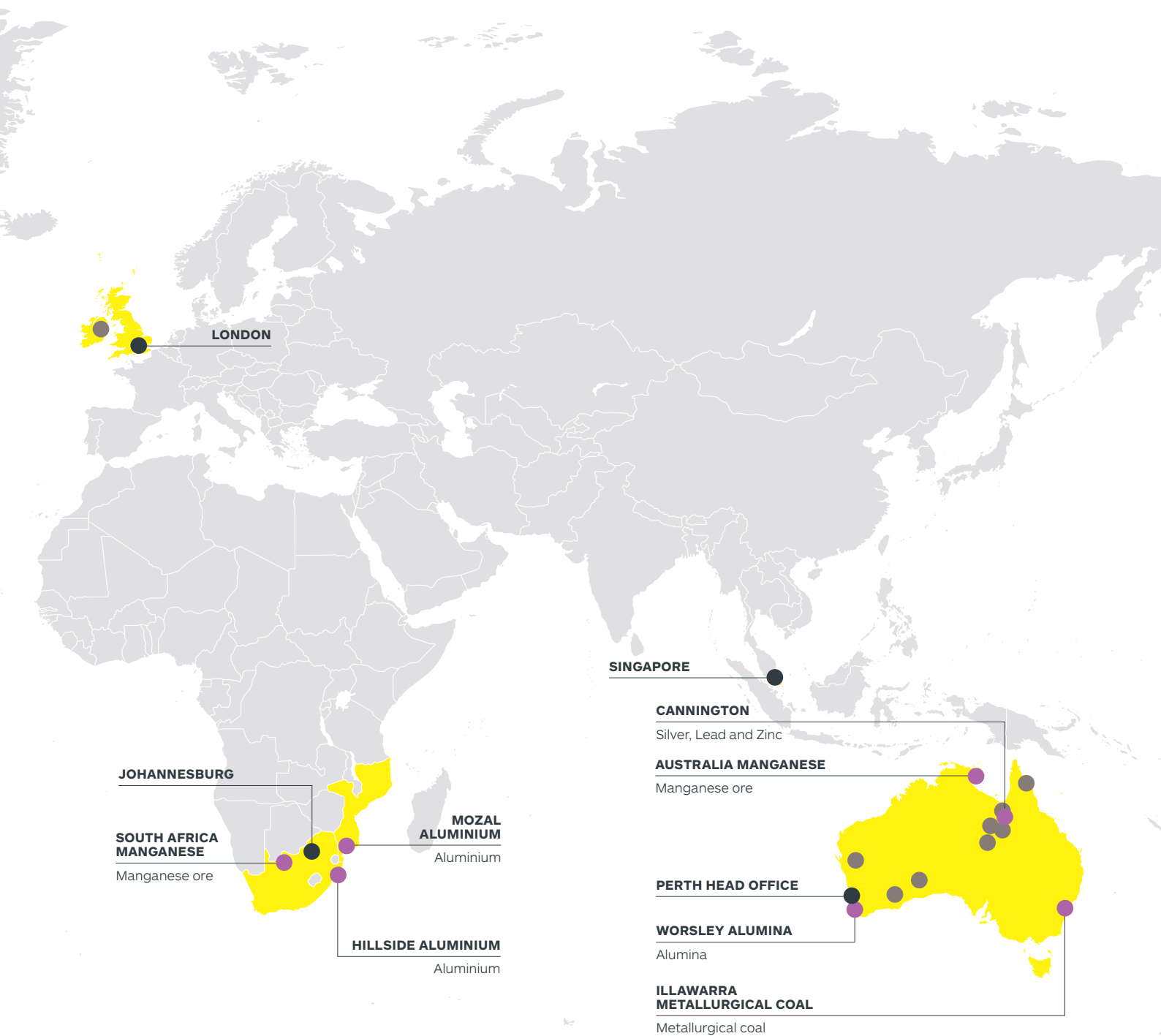
By Geography

- Australia
- Africa
- Americas

See **Segment Reporting in Note 4 to the financial statements** for more information

(1) Presented on a proportional consolidation basis and excludes manganese alloys (-US\$21 million), the Brazil Aluminium smelter (-US\$43 million), Hermosa (-US\$12 million), and Group and unallocated costs (-US\$69 million).





CREATING LONG-TERM VALUE

As a global mining and metals company, we create value by producing commodities that are used in all aspects of modern life. Our operations, development options and exploration programs are diversified by commodity and geography. We work to minimise the impact of our activities and aim to create enduring value for all of our stakeholders, at each stage of the mining lifecycle.

The resources we rely upon

People

Our global workforce is made up of both employees and contractors and is our most important resource, providing the skills, experience and technical expertise required to run our business.

Physical

We have a suite of assets including open-cut and underground mines, refineries, smelters and associated infrastructure which we focus on running safely and reliably. We procure equipment from suppliers globally to support our operations, development options and exploration programs.

Environmental

The resources and reserves we access are the primary inputs for our business. Other inputs such as water and energy are also important for the operation of our facilities.

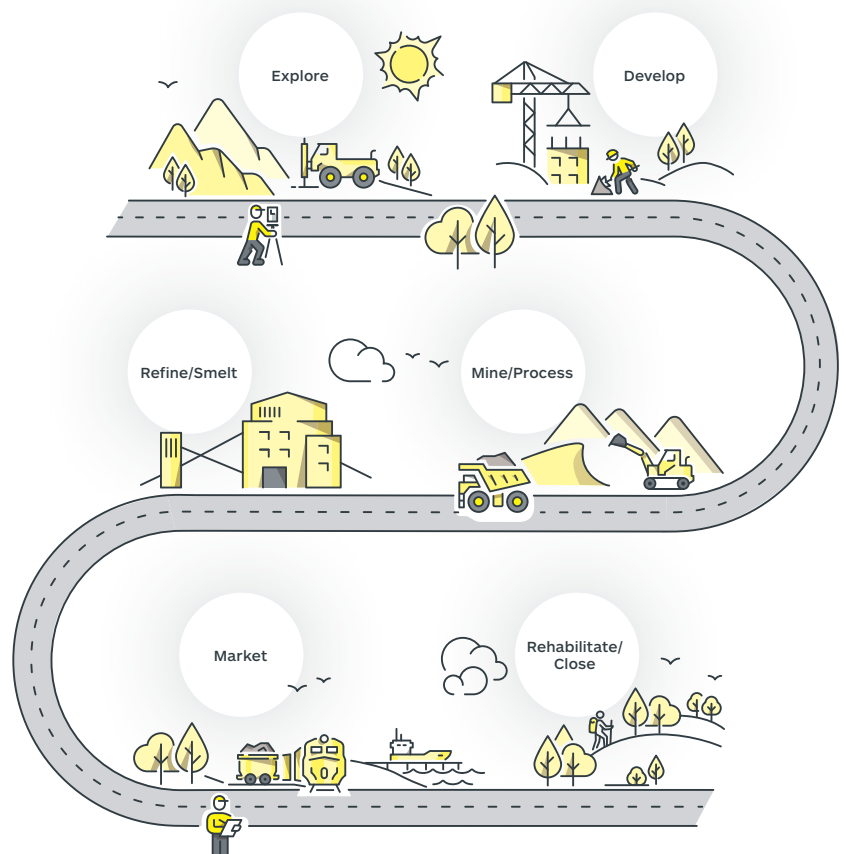
Economic

Our shareholders and lenders provide access to financial capital which we put to work by operating our existing facilities and funding our pipeline of development options and exploration programs.

Societal

We build strong relationships with our stakeholders based on trust and transparency and are entrusted to develop their resources.

What we do



What guides us



Our purpose

Learn more about [our purpose](#) on page 18.



Explore

We have more than 25 active exploration programs across the globe to discover our next generation of mines.

Develop

Our development options have the potential to provide commodities which support the transition to a low-carbon world. We have a pipeline of brownfield and greenfield options in execution or study phases.

Mine

We mine and process bauxite, copper, silver, lead, zinc, nickel, metallurgical coal and manganese.

Refine/Smelt

We refine bauxite to produce alumina, we smelt alumina to produce aluminium, and we smelt nickel ore to produce ferronickel.

Market

Our marketing team generates revenue from the sale of our commodities to a global customer base and purchases raw materials from global markets. They also build a view of commodities and their markets to inform our strategic business planning and investment decisions.

Rehabilitate/Close

From exploration through to closure and beyond, we seek to minimise our adverse impacts on the surrounding environments. We undertake progressive rehabilitation where possible and aim to leave a lasting and positive legacy in our host communities.

The outcomes we create

People

We provide meaningful employment and career development opportunities for the people who work for us, who in turn support their families and the communities they live in.

Physical

We produce commodities that are used in all aspects of modern life and play a critical role in the transition to a low-carbon world.

Environmental

We seek to avoid, minimise, rehabilitate and offset to deliver enduring outcomes for the ecosystems and catchments in which we operate.

Economic

Our disciplined approach to capital management supports investment in our business and rewards shareholders as performance improves.

Societal

The contribution we make to society is multi-faceted and helps improve people's lives by providing the commodities the world needs. In doing so, we create employment, pay taxes and royalties which help fund essential infrastructure and services, invest in communities, develop supply chains, provide returns to shareholders and work hard to be responsible stewards of the environment.

Learn more about **our impact** on page 16.



Our strategy

Learn more about **our strategy** on page 18.



Our values

Learn more about **our values** on page 18.

HELPING CREATE A LOW-CARBON FUTURE

Our commodities are used in all aspects of modern life and we are actively repositioning our portfolio to increase our exposure to the metals critical in a low-carbon world. Key market sectors where our commodities have an important role to play include construction, energy and renewables, the automotive industry and consumer goods.



Aluminium

Aluminium is often referred to as the metal of the future. It is lightweight, durable, strong, resistant to corrosion, recyclable and it can conduct electricity, meaning it has a wide range of applications including construction, electrical wiring, transportation, packaging and consumer goods such as electronics and household items. We are increasing our exposure to low-carbon aluminium and operate the largest aluminium smelter in the southern hemisphere.

Copper

Copper is a key metal used in electric vehicles and charging infrastructure. It is an excellent conductor of electricity, so as the world moves towards electrification, copper will increasingly be used in power-related infrastructure, including renewable energy. Copper is also used in kitchen cookware and plumbing as it conducts heat well and has antimicrobial properties. In FY22 we acquired an interest in our first operating copper mine.

Silver/Lead/Zinc

Silver is used in solar panels due to its superior electrical conductivity, and is also used to make medical appliances and consumer electronics. Lead is used in renewable energy storage systems. Zinc protects metals against corrosion and will play a key role in green infrastructure development as a protective coating for wind turbines and solar panels. In solar panels zinc oxide coatings help achieve higher energy conversion.

FY22 production at a glance

Aluminium (kt)

992

Copper (kt)

25.3

Silver (koz)

13,199

Lead (kt)

120.6

Zinc (kt)

64.5

Nickel (kt)

41.7

Metallurgical coal (kt)

5,712

Manganese (kwmt)

5,432



Nickel

Nickel is used in stainless steel, which is used in transportation, manufacturing, household items and surgical instruments. Nickel has an important role to play as the world transitions to a more sustainable future as it is used as an alloy in wind, solar and geothermal power infrastructure. Nickel-rich batteries are also critical for the rapid adoption of electric vehicles.

Metallurgical coal

Currently there is no viable alternative to high-quality metallurgical coal in the steelmaking process and the use of high-quality metallurgical coal, such as that we produce, supports greenhouse gas emissions reduction targets in the steel industry through improved blast furnace efficiency. Growth in steel demand is anticipated for green infrastructure development and vehicle electrification, as well as for the establishment of new steel capacity in emerging markets.

Manganese

Manganese is used to improve the quality and strength of steel in major infrastructure such as hospitals, office towers and bridges, and as the world increases scrap steel recycling, this has a limited impact on manganese as it is largely lost in the recycling process. Manganese also has the potential to displace cobalt in lithium-ion batteries with significantly higher intensity in manganese-rich cathode chemistries. We are well positioned to meet future demand as we are the world's largest producer of manganese.

DEVELOPING NATURAL RESOURCES TO CHANGE LIVES FOR THE BETTER

Sustainability is at the heart of our purpose and underpins the delivery of our strategy. In delivering our purpose, we seek to create enduring social, environmental and economic value.

Our approach to sustainability comprises five interconnected pillars which focus on areas that are material to our business and stakeholders.





Protecting and respecting our people

The most important commitment we all make at South32 is that everyone goes home safe and well every day. We are committed to working together safely, creating an environment where our people are supported to speak up, and building an inclusive and diverse workforce.

Learn more about how we are **protecting and respecting our people** in our Sustainable Development Report at www.south32.net



Delivering value to society

We are committed to making a meaningful contribution to people's lives by creating lasting social, environmental and economic value. We believe trust and transparency are essential to the way we operate, we listen to our stakeholders and work together to create shared value.

Learn more about how we are **delivering value to society** in our Sustainable Development Report at www.south32.net



Operating ethically and responsibly

Operating ethically and responsibly is fundamental to fulfilling our purpose, delivering on our strategy and achieving our aspiration of building strong, mutually beneficial and trusting relationships with our stakeholders. We respect human rights and apply responsible business practices across our value chain.

Learn more about how we are **operating ethically and responsibly** in our Sustainable Development Report at www.south32.net



Managing our environmental impact

Effective environmental management is essential and we are committed to protecting natural resources including water, biodiversity, air and surrounding ecosystems. We work hard to be responsible stewards of the environment and treat natural resources with care so that they are available for future generations.

Learn more about how we are **managing our environmental impact** in our Sustainable Development Report at www.south32.net



Addressing climate change

Our approach to climate change is designed to protect and unlock long-term value, build operational resilience, and enhance our competitiveness. We are responding to the risks and opportunities of climate change by producing metals that support the transition to a low-carbon world, in a way that seeks to minimise our impact.

Learn more about how we are **addressing climate change** in our Sustainable Development Report at www.south32.net

HELPING TO IMPROVE PEOPLE'S LIVES

We are committed to creating value for all of our stakeholders. We believe that, when done sustainably, the development of natural resources can change people's lives for the better. Here are some of the ways we are doing this.



People



9,096

employees globally⁽¹⁾

US\$768m paid in wages, salaries and redundancies

394 new hires into entry level roles such as apprentices and trainees

We invest in our people through training and development to help them realise their career aspirations

We are embedding inclusion and diversity into everything we do to help everyone realise their full potential

Learn more about **our people** in our Sustainable Development Report at www.south32.net

(1) Includes direct employees at Brazil Alumina, Brazil Aluminium and Sierra Gorda.
(2) Includes Brazil Alumina, Brazil Aluminium and Sierra Gorda.

Governments



US\$1,447m

in total taxes and royalties paid⁽²⁾

Underlying effective tax rate of 31.7 per cent

Wherever we operate, we seek to work cooperatively with governments to help them realise value from natural resources and transition to lower-carbon economies

We work with a range of stakeholders to influence public policy to help improve people's lives

Learn more about **our approach to tax** in the Tax Transparency and Payments to Government Report and **our approach to industry associations** at www.south32.net

Communities



US\$31.1m

invested in community programs with the aim of creating long-term, meaningful change

Our direct community investment spend was across our four key focus areas - education and leadership (34 per cent), economic participation (11 per cent), good health and social wellbeing (47 per cent), and natural resource resilience (eight per cent)

We work closely with Indigenous, Traditional and Tribal Peoples to perpetuate living cultures

Learn more about **how we deliver value to society** in our Sustainable Development Report at www.south32.net

Investors



40%

Our capital management framework prioritises maintaining safe and reliable operations and an investment grade credit rating through the cycle, before distributing a minimum of 40 per cent of underlying earnings as ordinary dividends

US\$1,192m in dividends returned to shareholders in respect of FY22

US\$128m allocated to our on-market share buy-back

Learn more about **our capital management framework** in Our strategy on page 19.



Suppliers



US\$907m

spent on local procurement

US\$19m procured from Aboriginal and Torres Strait Islander businesses in Australia

US\$17m spent on Enterprise Supplier Development in South Africa

We work with 5,652 direct suppliers in 50 countries to source responsibly and enhance product stewardship across our value chain

Learn more about **our approach to responsible value chains** in our Sustainable Development Report at www.south32.net

Environment



50%

We have set a medium-term target to halve our operational greenhouse gas (GHG) emissions (Scope 1 and 2) by 2035 and we are committed to achieving net zero operational GHG emissions by 2050

We have set a new goal of net zero Scope 3 GHG emissions by 2050

276 hectares of land rehabilitated

Water use efficiency improved by 21 per cent year-on-year

Learn more about **our approach to climate change and our approach to managing our environmental impact** in our Sustainable Development Report at www.south32.net

A STRATEGY TO ACHIEVE OUR PURPOSE

Our purpose, strategy and values guide not only what we do, but how we do it. Every day, in support of our purpose and aligned with our values, our people work to deliver our strategy for the benefit of all of our stakeholders.

Our **purpose** is to make a difference by developing natural resources, improving people's lives now and for generations to come. We are trusted by our owners and partners to realise the potential of their resources. This is underpinned by a simple yet powerful **strategy**:



Our strategy outlines what we do to achieve our purpose and our **values** guide how we do it. Our values shape the way we behave and the standards we set for ourselves and others.

Our values

Care

We care about people, the communities we're a part of and the world we depend on.

Trust

We deliver on our commitments and rely on each other to do the right thing.

Togetherness

We value difference and we openly listen and share, knowing that together we are better.

Excellence

We are courageous and challenge ourselves to be the best in what matters.

We deliver on our purpose and our strategy by aligning our workforce behind seven 'breakthroughs' – commitments which shape our annual business plans across South32, enabling us to focus on what's important.

Building on the momentum created in FY21, FY22 was a transformational year for our company as we continued to deliver against our strategy.

The most important commitment we all make at South32 is that everyone goes home safe and well every day. During FY22 we developed a Safety Improvement Program, a three-year global program of work designed to achieve a step-change in our safety performance, and we worked to improve our approach to contractor management.

An inclusive, diverse and engaged workforce can unlock the full potential of our people and our business. Throughout FY22 we implemented an Inclusion and Diversity Action Plan as part of our journey to instil a culture that aligns with our purpose, reflects our values and supports the delivery of our strategy.

Our approach to climate change is integrated with our strategy and is designed to protect and unlock long-term value, build operational resilience, and enhance our competitiveness in a low-carbon world. As a global mining and metals company, we have an important role to play in responding to the risks and opportunities of climate change: to produce the metals that support the transition to a low-carbon world; and to do so in a way that minimises our impact.

We continue to reshape our portfolio, increasing our exposure to the metals critical to a low-carbon future. This year we added copper to our portfolio and grew our exposure to low-carbon aluminium. Our next phase of growth is expected to come from our base metals development options in North America, and we continue to invest to discover our next generation of mines.

Our FY22 commitments and performance are summarised on the following pages.

Risk framework and corporate governance

We are governed by robust risk management and corporate governance frameworks. For more information, see pages 26 to 35 for our Risk management section, and our Corporate Governance Statement which can be found at www.south32.net

Capital management framework

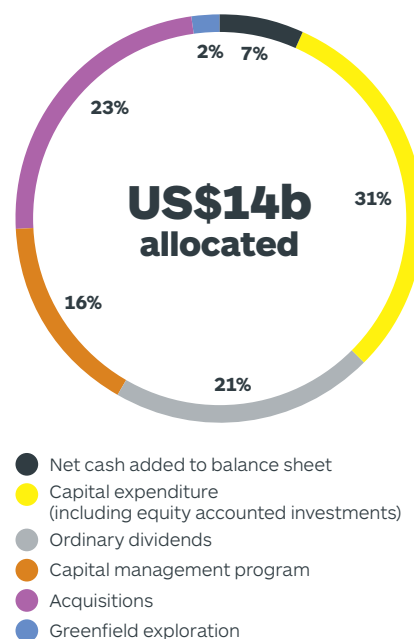
Our simple strategy is underpinned by a disciplined approach to capital management.

Our capital management framework remains unchanged, supporting investment in our business and rewarding shareholders as our financial performance improves.

Our capital allocation priorities are to maintain safe and reliable operations and an investment grade credit rating throughout the cycle. We intend to distribute a minimum of 40 per cent of Underlying earnings as ordinary dividends to our shareholders following each six-month reporting period. We encourage internal competition for excess capital, which can include further investment in new projects, acquisitions, greenfield exploration, share buy-backs or special dividends.

We returned a record US\$1.3 billion to shareholders in respect of FY22 via ordinary dividends, special dividends and our on-market share buy-back. The Board further expanded our capital management program to US\$2.3 billion in August 2022, leaving US\$250 million to be returned by 1 September 2023.

Capital allocation since FY16



Working safely

Our FY22 commitments:

- A 20 per cent reduction in Total Recordable Injury Frequency (TRIF) against the adjusted baseline⁽¹⁾;
- Completion of the Safety Improvement Program milestones;
- A reported significant hazard frequency of 53⁽²⁾; and
- A 20 per cent reduction in potential material health exposures against the baseline.

Progress during the year:

We are deeply saddened by the loss of one of our colleagues, Mr Desmin Mienies, a contractor who was fatally injured while undertaking electrical work at our Wessels Mine at South Africa Manganese on 30 November 2021. Our deepest sympathies are with Mr Mienies' family, friends and colleagues. We provided them with our support following the tragic incident and undertook a detailed investigation to understand what happened. Learnings from the investigation were shared across our organisation.

We recognise that we must continue to improve our safety performance. During the first half of FY22, we partnered with a leading safety consultant to undertake a review of our safety performance and identify areas for improvement. This formed the foundation for our Safety Improvement Program, a three-year global program of work designed to achieve a step-change in our safety performance. Consistent with the review findings, in March 2022 we published our revised internal safety standard - an important foundational element in the implementation of our Safety Improvement Program.

Contractors make up a significant proportion of our workforce and over the last two years we have undertaken a substantial work program to improve contractor safety. In FY22 we developed our internal contractor management standard, which describes the end-to-end process, core components and related performance requirements of our Contractor Management System of Work. It defines the key phases of the contractor management value chain and outlines the performance requirements for each phase, including how we support our contractors to undertake work safely.

Our TRIF decreased by 12 per cent compared to the FY21 adjusted baseline, however we did not meet our target of a 20 per cent reduction.

Proactive hazard reporting remains key to our approach to safety, and we exceeded our target with a reported significant hazard frequency of 72⁽²⁾. We also saw a 27 per cent decrease in total potential significant events.

We achieved a 34 per cent reduction in the number of people potentially exposed to material health exposures against the baseline, well above our target of a 20 per cent reduction. The disciplined execution of exposure reduction projects supported a reduction in potential material exposures at multiple operations.

COVID-19 continued to affect our people, operations, projects and offices, and we experienced periods of elevated case numbers and restrictions across all our locations. We support the use of regulatory approved vaccines and actively encourage vaccination for all our employees and contractors. Where possible we have worked with local authorities for our employees and contractors, their families and our communities to access vaccines.

(1) TRIF baseline was adjusted at end FY21 to account for the removal of South Africa Energy Coal and Tasmanian Electro Metallurgical Company from the portfolio.

(2) Per million hours worked.

Reduction
in TRIF

12%

Reported significant
hazard frequency

72⁽²⁾

Stable and predictable performance while minimising impact

Our FY22 commitments:

- Production within 97-102 per cent of budget;
- Controllable costs within US\$50 million of budget;
- Sustaining capital expenditure within five per cent of budget and less than 20 per cent break-in projects; and
- Achieve budget adjusted return on invested capital (ROIC)⁽¹⁾.

Progress during the year:

In FY22 we achieved revenue equivalent production of 98 per cent of budget. We achieved record production at Worsley Alumina, while Hillside Aluminium and Mozal Aluminium continued to test maximum technical capacity and delivered record operating margins. At Cannington we exceeded production guidance as we transitioned to a new mine configuration, bringing forward higher-grade material and at Cerro Matoso we achieved a 22 per cent increase in nickel production. For more information on our operating performance, see pages 46 to 56.

Controllable costs were US\$37 million above budget. Higher contractor and maintenance costs, and higher port and demurrage costs, were partially offset by lower labour costs with headcount efficiencies at some operations.

Sustaining capital expenditure was 94 per cent of budget, with South Africa Manganese, Hillside Aluminium, Illawarra Metallurgical Coal, Cerro Matoso and Worsley Alumina below target, and Cannington and Groote Eylandt Mining Company exceeding target. There were 13 per cent, or 63, break-in projects and the adjusted ROIC was 6.6 per cent against the target of 6.9 per cent.

Learn more about [how we minimise our impact](#) in Create enduring social, environmental and economic value on page 24.

(1) This is a non-IFRS measure. For an explanation of how South32 uses non-IFRS measures, see page 36.

Production
versus budget

98%



UNLOCK THE VALUE OF OUR BUSINESS

Our people are connected and engaged

Our FY22 commitments:

- Meet our measurable objectives for representation of employees and senior leaders who are women;
- Meet our measurable objectives for representation of Black People in our South African workforce and management roles;
- Deliver our Inclusion and Diversity Action Plan; and
- Improve our employee engagement score.

Progress during the year:

In FY22 our performance either improved or remained consistent for seven of our eight inclusion and diversity measurable objectives.

There are five measurable objectives for representation of employees and senior leaders who are women. The representation of women in our workforce improved, increasing to 19 per cent from 18 per cent in FY21. The representation of women on our Board was unchanged at 37 per cent, while the representation of women on our Lead Team decreased to 37 per cent from 44 per cent in FY21 due to a reduction in the size of our Lead Team. The representation of women in our Senior Leadership Team improved to 32 per cent from 30 per cent in FY21, however there is more work to do to meet our 40 per cent target. The representation of women in our Operational Leadership Team improved to 20 per cent from 18 per cent in FY21 and met our target.

We demonstrated year-on-year improvement in the representation of Black People in our workforce in South Africa, reaching just over 86 per cent and meeting our target. We also demonstrated year-on-year improvement in the representation of Black People in management roles in South Africa, reaching 62 per cent and meeting our target.

In FY21 we established an inclusion and diversity working group which identified the need to embed inclusion and diversity into everything we do, guided by an integrated program of work. This led to the formation of our Inclusion and Diversity Action Plan, which we implemented throughout FY22. A critical component of the Action Plan was the development of our new internal inclusion and diversity standard, which sets minimum inclusion and diversity requirements for all elements of people management.

We have carefully considered the extent to which sexual harassment occurs in our industry, and in our business, and in FY22 we continued to undertake a significant amount of work so our people feel safe, included and respected at work. We know there is always more to do and we are working to understand and respond to the risk factors for harassment, just as we do for other safety risks. More recently, our work has also been informed by broader industry learnings following the publication of key reports on this critical issue.

Through engagement with our people we can better understand their day-to-day lived experience and perceptions of our culture. We conducted our annual Your Voice employee survey in March 2022, with the survey testing five primary dimensions - safety, leadership, employee engagement, employee experience and workplace conduct. Seventy per cent of our employees completed the survey, the highest participation rate since 2016. The results highlighted our strong commitment to safety, the benefits of the investment we are making in leadership, and that the majority of our people believe in our values and are proud to work at South32. Opportunities for improvement include strengthening leadership capability, creating an environment where all our people feel safe speaking up, and providing meaningful recognition in the workplace.

Technology and innovation unlock value

Our FY22 commitments:

- At least 80 per cent of agreed initiative milestones met for the Next Generation Mine Innovation Mission; and
- At least 80 per cent of agreed program milestones met for the Hermosa Technology Development Program.

Progress during the year:

Technology and innovation are key enablers of our transition to a low-carbon future and to realising safer, cleaner and more productive operations. To focus our innovation investment in the areas that matter most, in FY21 we established Innovate32, our strategy-aligned, value-creating approach to better enable innovation at South32.

One of Innovate32's strategic focus areas is the Next Generation Mine Innovation Mission to reshape the way we mine at Hermosa, and our future projects, to deliver transformational safety and productivity outcomes. In FY22, our key work programs were focused on automation, electrification and sensing, processing technology enhancements and digitisation. Four of five milestones were completed, with the fifth in progress.

Our ambition is for the Taylor Deposit at the Hermosa project to be our first next generation mine. The Hermosa Technology Development Program defined the key technology scopes that were developed as part of the Taylor Deposit studies, including an automation, electrification and sensing implementation plan, an ore sensing technology assessment, and digital project delivery. All program milestones were completed in FY22.

We complement our own programs by collaborating with other companies, industry groups and research organisations through initiatives such as the Electric Mine Consortium, BluVein, the Heavy Industry Low-carbon Transition Cooperative Research Centre and a partnership with Australia's CSIRO to develop new ventilation air methane abatement technologies. Learn more about these partnerships in our Sustainable Development Report at www.south32.net

Project execution

Our FY22 commitments:

- Commence the Taylor Deposit feasibility study;
- Commence the Clark Deposit pre-feasibility study (PFS); and
- Progress the Flux Prospect exploration plan of operations.

Progress during the year:

We reached an important milestone for the Hermosa project in January 2022 with the completion of a PFS for the Taylor Deposit, the first development option at the project. The PFS results support the Taylor Deposit's potential to be the first development of a multi-decade operation, establishing Hermosa as a globally significant producer of metals critical to a low-carbon future, delivering attractive returns over multiple stages⁽¹⁾. An initial development case demonstrates a sustainable, highly productive zinc-lead-silver underground mine and conventional processing plant, in the first quartile of the industry cost curve. The Taylor Deposit has progressed to a feasibility study, ahead of a planned final investment decision in mid-calendar year 2023.

Separately, a scoping study for the spatially linked Clark Deposit has confirmed the potential for an integrated underground mining operation producing battery-grade manganese, as well as zinc and silver. The Clark Deposit has the potential to underpin an additional development stage at Hermosa, with future studies to consider the opportunity to integrate its development with the Taylor Deposit, potentially unlocking further operating and capital efficiencies. We have subsequently commenced a PFS for the Clark Deposit.

Our third focus at Hermosa is unlocking value through the exploration of our regional scale land package. We have identified a highly prospective corridor which will be prioritised for future drilling. Within this corridor, we have progressed the Flux Prospect exploration plan of operations and plan to drill the prospect in early calendar year 2023 following receipt of required permits, anticipated in the second half of this calendar year.

In May 2022 the right-of-way permits previously issued to the Alaska Industrial Development and Export Authority for the Ambler access road were temporarily suspended to allow for additional work to be undertaken on the Final Environmental Impact Statement. Together with our Ambler Metals Joint Venture partner, we continue to assess the impact of this decision on our own study work for the access road. Separately, we have commenced exploration activities at Ambler Metals for the calendar year 2022 summer field season, including additional infill drilling at the Arctic Deposit and drill testing of regional exploration targets in the Ambler Belt, which is expected to support ongoing study work.

Subsequent to the end of the reporting period, we announced that we will not proceed with an investment in the Dendrobium Next Domain project at Illawarra Metallurgical Coal following our consideration of recently completed study work and extensive analysis of alternatives considered for the complex. With this decision, we will now focus on continuing to optimise Dendrobium and the broader Illawarra Metallurgical Coal complex to extend the mine life within approved domains⁽²⁾.

At Worsley Alumina, we are pursuing State and Commonwealth environmental approvals for the Worsley Mine Development which, if approved, would provide access to future bauxite reserves and resources to sustain production for approximately the next 15 years. A comprehensive Environmental Review Document was published in June 2022.

(1) Refer to market release dated 17 January 2022 at www.south32.net

(2) Refer to market release dated 23 August 2022 at www.south32.net



IDENTIFY OPPORTUNITIES

Create enduring social, environmental and economic value

Our FY22 commitments:

- Implement community investment plans for each operation and apply the impact measurement framework to all strategic community investments;
- Update the internal community and social performance standard; and
- Complete global reviews for cultural heritage in all our operating regions outside Australia and finalise our Approach to Indigenous, Traditional and Tribal Peoples Engagement.

Progress during the year:

Community investment plans were implemented for each operation and we invested US\$31.1 million⁽¹⁾ in community initiatives, an increase of 40 per cent from FY21. Our direct community investment spend was across our four key focus areas - education and leadership (34 per cent), economic participation (11 per cent), good health and social wellbeing (47 per cent), and natural resource resilience (eight per cent). We applied the community investment impact measurement framework to all strategic community investments, with 97 per cent of projects that are measuring outcomes reaching their outcome targets, exceeding our target of 80 per cent of projects.

Our internal community standard has been in place since 2015 and was updated in 2018. In line with our desire to continually improve our social performance, we reviewed the standard in FY22 considering our purpose, strategy, updates to the ICMM Mining Principles and rapidly changing societal expectations, and enhanced it to become our internal social performance standard. It builds on the foundations of the community standard and strengthens the requirements for social performance across the business.

Cultural heritage reviews for our operations in the Americas and southern Africa were completed in FY22. These inform the ongoing development of our Approach to Indigenous, Traditional and Tribal Peoples Engagement.

Growing and developing small, medium, and micro enterprises (SMMEs) is fundamental to the transformation of the South African economy. We collaborate with SMMEs on Enterprise Supplier Development (ESD) and in FY22 ESD spend more than tripled to US\$17 million⁽²⁾. We also engage with and support the development of Aboriginal and Torres Strait Islander (ATSI) businesses in Australia, with direct spend increasing by 34 per cent against a target of 10 per cent.

Our approach to climate change is aligned to our purpose and integrated with our strategy, and is focused on reshaping our portfolio, decarbonising our operations, addressing physical climate risk, and working with others to innovate and address shared challenges.

Our reported Scope 1 and Scope 2 emissions for FY22 were 21.0 Mt CO₂-e, a 1.4 per cent increase from our adjusted FY21 greenhouse gas (GHG) emissions⁽³⁾. Direct emissions from activities at our operations (Scope 1) decreased by 0.2 Mt CO₂-e, however there was an increase of 0.5 Mt CO₂-e in emissions from electricity used by our operations (Scope 2). More information on our operational GHG emissions can be found in our Sustainable Development Report at www.south32.net

We continue to look for opportunities to improve water use. We have identified material water-related risks at five operations and have set contextual water targets for each, with one successfully completed in FY22 and the others progressing to plan. Across our portfolio, water use efficiency improved by 21 per cent year-on-year. Learn more about how we manage our environmental impact in our Sustainable Development Report at www.south32.net

Around the world we have land holdings of 658,005 hectares. Cumulatively, we have disturbed less than two per cent of our landholdings for operational reasons, of which 34 per cent has been rehabilitated. In FY22 we rehabilitated 276 hectares of disturbed land across our operations, and maintained our commitment to delivering no net loss outcomes for all new projects and major expansions.

(1) Community investment consists of direct investment, in-kind support and administrative costs.

(2) ESD consists of two activities, Enterprise Development and Supplier Development. The Enterprise Development component, which was US\$7.7 million in FY22, is captured in both the ESD total and the community investment total.

(3) FY21 emissions adjusted to exclude GHG emissions from South Africa Energy Coal and Tasmanian Electro Metallurgical Company, which were divested in FY21.

Increase in community investment spend

40%

Enterprise Supplier Development spend

US\$17m

Increase in procurement from ATSI businesses

34%

Sustainably reshape our business for the future

Our FY22 commitments:

- Develop and pursue opportunities to optimise our portfolio.

Progress during the year:

We have significantly enhanced the quality of our portfolio over the past 12 months and added to our pipeline of projects to improve productivity and grow volumes into structurally attractive markets.

In February 2022 we completed the acquisition of a 45 per cent interest in the Sierra Gorda copper mine in Chile. Sierra Gorda is a large scale, open-pit mine that brings immediate volume and future growth potential.

We are also growing our low-carbon aluminium exposure. In January 2022 we announced our decision to participate in the restart of the Alumar aluminium smelter in Brazil (Brazil Aluminium), with first production achieved in the June 2022 quarter. Our share of production is powered by 100 per cent cost efficient renewable power. We also acquired an additional 16.6 per cent shareholding and related rights in Mozal Aluminium in May 2022, increasing our shareholding to 63.7 per cent. Mozal Aluminium is powered by hydroelectricity. Through these investments, we have increased our low-carbon aluminium production capacity by more than 100 per cent.

We also acquired an additional 18.2 per cent interest in the Mineração Rio do Norte bauxite mine in April 2022, taking our ownership to 33 per cent, to further align our bauxite supply requirements within our aluminium value chain in Brazil.

We are significantly increasing our exposure to higher margin businesses that produce metals critical to a low-carbon future, and we expect copper equivalent production growth of 14 per cent in FY23⁽¹⁾.

Our development options in North America have the potential to underpin a significant growth profile, and study outcomes for the Hermosa project's Taylor and Clark Deposits and Ambler Metals' Arctic Deposit confirm their potential to supply critical minerals into the future.

We continue to invest to discover our next generation of mines, with more than 25 active exploration programs around the world and US\$56 million spent in FY22 across our portfolio of greenfield and development options.⁽²⁾

In July 2022 we completed the sale of a package of non-core development-stage base metals royalties for a sale price of up to US\$200 million, a further step forward in unlocking latent value from our portfolio. Following the sale, we retain a portfolio of 36 royalties at different stages of maturity, weighted towards base metals.

(1) Group FY22 and FY23 estimated copper equivalent production for all operations. Copper equivalent production was calculated using FY22 realised prices for all operations except for Brazil Aluminium which is based on FY22 average index price for aluminium.

(2) Please refer to page 174 for Our exploration, research and development.



MANAGING OUR RISKS TO PROTECT AND UNLOCK VALUE

Risk management is fundamental to maximising the value of our business and informing its strategic direction. Effective risk management enables us to identify priorities, allocate resources, demonstrate due diligence in discharging legal and regulatory obligations, and meet the standards and expectations of our stakeholders.

Our approach to risk management is governed by our risk management framework. The minimum mandatory requirements for the management of risks that can materially impact our ability to achieve our purpose, strategy and business plans are defined in our internal material risk management standard. The framework and the standard are delivered through our system of risk management which is aligned to the principles of the International Standard for Risk Management AS/NZS ISO 31000:2018.

Our approach to risk management applies to all employees, directors and contractors of the Company and its subsidiaries. Our risks are regularly assessed and managed at both a company-wide strategic level and at a tactical level for operation, project and function and risks.

Risk appetite

Risk appetite is the level of residual risk that South32 is willing to take in pursuit of our strategic objectives, which is established in relation to our operating environment. Our Board approves the risk appetite set by management. Our internal Risk Appetite Statement outlines the extent to which we are or are not willing to engage with higher levels of risk (both threats and opportunities) in order to realise greater benefit in the pursuit of our purpose and strategy and in alignment with our values and Code of Business Conduct. Key risk indicators (KRIs) are set by management and used to monitor performance against our set risk appetite. Understanding our risk appetite across our strategic risks assists in decision-making across the Group.

Material risks

Our system of risk management is based on the three lines model, which describes how key organisational roles work together to facilitate strong risk management and assurance. This approach is used to manage our material risks and enables us to:

- Provide stable and consistent processes, tools and routines to identify and regularly assess the most impactful threats and opportunities;
- Deliver predictable outcomes and prevent unforeseen events with material impacts;
- Understand our risks and manage these at all levels of the organisation; and
- Reduce or eliminate risks where appropriate or improve our processes using a risk-based approach.

The effective management of our material risks is routinely assessed by the South32 Lead Team. These risks are reviewed by the Risk and Audit Committee and the Sustainability Committee, which assist the Board to carry out its role of overseeing our risk management and assurance practices.

We report transparent real-time risk data through our risk management tool, Global360. This software connects data relating to the management of our risks, events, hazards and assurance actions. Aside from helping us manage our operations, projects and functions, reliable data on material risks contributes towards the monitoring and management of our strategic risks. This provides insight into trends and emerging themes that can trigger a review of our business plans or inform a change in strategic direction.

Strategic risks

Our strategic risks are risks which can affect our ability to achieve our strategic objectives. They have the capacity to affect the whole, or a significant part, of our organisation and therefore tend to have significant impacts, both negative and positive. With that in mind, our strategic risks, associated KRIs and management responses are monitored and evaluated twice per year. The review process is informed by external and internal events that could have a potential impact on our organisation, as well as emerging themes across our material risks. In FY22, we identified 13 strategic risks which could influence our plans and the sustainability of our business, each of which is explained further in subsequent pages.

Strategic risk key

- ↑ The inherent risk impact or likelihood has increased over the past 12 months (i.e. without considering internal controls or management responses).
- ↔ The inherent risk impact or likelihood has remained constant over the past 12 months (i.e. without considering internal controls or management responses).
- ↓ The inherent risk impact or likelihood has decreased over the past 12 months (i.e. without considering internal controls or management responses).

Keeping our people safe and well

A safe and healthy working environment is fundamental to living our values.

Inherent risk trend 2022



Opportunities

Keeping our people safe and well underpins the culture we aspire to and sets our expectations of each other.

Threats

The impact of not having a safe working environment can be devastating for our employees, contractors and communities. It can alter lives and impact shareholder returns, stakeholder confidence and ultimately our licence to operate.

Risk appetite

Aligned to our purpose and values, we will not take actions that compromise the health, safety or wellbeing of our people, contractors and communities.

Our response includes:

- In everything we do, we focus on the health, safety and wellbeing of our people, contractors and communities;
- We have a system of risk management and comprehensive internal health and safety policies, standards and systems with associated performance requirements designed to prevent and mitigate potential exposure to health and safety risks;
- We value and strive to build inclusion, diversity and equity in our workplace where everyone is valued and can participate to achieve their full potential. We do not tolerate any form of inappropriate conduct which includes bullying, harassment, discrimination or victimisation;
- We engage, develop and train our people so that our work is well designed and executed;
- We investigate actual and potential significant events that could have led to severe injury or higher outcomes, put controls in place and share our learnings across the organisation;
- We continuously improve our work environment to make it safer, healthier and more productive for our people; and
- We have an independent assurance function, following the three lines model, that reviews our material risks and the associated controls, to test how effective they are.

Portfolio reshaping

Our objective is to improve our return on invested capital and create shareholder value by increasing our exposure to high-quality operations in commodities with a strong and sustainable outlook, in jurisdictions where we believe we can operate in line with our values and Code of Business Conduct.

Inherent risk trend 2022



Opportunities

Increasing our exposure to the metals critical to a low-carbon future will position our business for a low-carbon world, in alignment with our strategy. Acquisitions of operations or development projects, including non-operating and non-controlling shares in these operations and projects, present us with opportunities to increase our exposure to these metals. The successful acquisition of a non-operating, joint controlled, 45 per cent share in Sierra Gorda highlights our ability to seek and deliver on these opportunities. Partnering with junior explorers also creates opportunities for us in early-stage exploration in more challenging jurisdictions.

Threats

Changing global sentiment presents a threat to the sustainability of our current portfolio mix if we do not act to reshape our portfolio. In responding to stakeholder expectations, we could make decisions to dispose of climate or carbon exposed operations, projects and investments at less than market value. Increasing demand for the metals critical to a low-carbon future may drive higher valuations of operations and projects that we want to acquire, making acquisitions challenging. Geopolitical developments may limit those jurisdictions in which we can operate or those counterparties with which we can partner or transact.

Risk appetite

We accept that in actively transforming our portfolio, we need to take risk to capture opportunities. We will seek to do so in jurisdictions and commodities where we believe we can operate or invest in line with our values and Code of Business Conduct.

Our response includes:

- We are actively reshaping our portfolio towards commodities critical to a low-carbon future by transitioning out of carbon exposed commodities and assets, seeking to enhance our resilience to the physical impacts of climate change;
- We take more risk on early-stage exploration projects, including jurisdictional risk as well as through joint ventures and earn-ins, but always commensurate with the commercial exposure; and
- We will be flexible on opportunistic acquisitions including non-controlling and non-operating shareholdings in incorporated or unincorporated joint ventures.

Climate change and environment

Climate change poses physical risks to our business, our people and the infrastructure, communities and environment on which we rely. The political, social and economic responses to the challenges posed by climate change and the transition to a low-carbon economy also pose risks to our business performance (i.e. demand for some of our commodities, cost and profit margins, social licence, regulatory exposure). Learn more about our approach to climate change, including our detailed assessment of the risks climate change poses to our business, in our Climate Change Action Plan (CCAP) in our Sustainable Development Report at www.south32.net

Our operations also have the potential to impact biodiversity, air, land and water resources. This may result in increased costs to mitigate or address such impacts, prevent or delay project approvals, and result in reputational damage.

Water is critical to our operations and water scarcity, increased competition for supply or costs to access can impact our operations, supply chains and communities.

Inherent risk trend 2022



Opportunities

Aligning our business strategy, including how we operate and what we produce, with stakeholder expectations, future technologies and evolving climate and environmental policies and regulations, contributes to a resilient and high performing portfolio.

We aim to increase the efficiency of our operations and support business continuity through responsibly assessing and addressing our climate change and environment-related risks and impacts, and increasing the resilience of our business, value chain and communities in which we operate.

Threats

The complex and pervasive nature of climate change means that climate-related risks and opportunities are reflected across our risk profile. The potential impacts of climate change on our strategic risks are outlined on pages 99 to 101 of the CCAP.

Failure to manage environmental risks may impact our ability to secure development approvals, permits or licences and increase our legal exposures. It may also limit our ability to access capital and insurances, develop strategic partnerships with Indigenous, Traditional and Tribal Peoples or environmental organisations, attract and retain employees, and grow our business in existing and new jurisdictions.

Risk appetite

We recognise the impact our mining operations have on the environment due to the extractive nature of our activities and that the greenhouse gas emissions associated with our activities contribute to climate change. We also recognise the role our industry plays in providing the materials that are essential in the transition to a net zero global economy and we want to be part of that solution. We acknowledge that we have potential vulnerabilities to the physical impacts of climate change and exposure to climate-related transition risk and nature-related risk.

We accept that we need to take risks in order to minimise our environmental impact and meet our greenhouse gas emissions reduction target and goals. We will continue to seek opportunities to transform our portfolio to maintain competitiveness in a low-carbon world and reduce our exposure to physical and transitional climate change risk and nature-related risk.

Our response includes:

- Our approach to managing the transition and physical risks of climate change is outlined in our CCAP;
- Our sustainability approach, inclusive of our environmental performance requirements, is guided by the ICMM Mining Principles, United Nations Global Compact Ten Principles and United Nations Sustainable Development Goals and is outlined in our Sustainability Policy and Sustainable Development Report at www.south32.net;
- We seek to manage water resources using a holistic approach to promote better water use, effective catchment management and to contribute to improved water security and sanitation;
- We establish contextual water targets for operations exposed to water-related material risks;
- We are committed to no net loss outcomes for all new projects and major expansions through a balanced application of the biodiversity mitigation hierarchy of avoidance, minimisation, rehabilitation and offsetting;
- We integrate land management and rehabilitation processes into our business planning and give consideration to cumulative impacts when developing management controls to minimise impacts on surrounding ecosystems;
- We engage regularly with investors, governments, industry partners, membership-based sustainability organisations, ESG proxy advisers and ESG activist groups to identify and monitor emerging environmental and climate change risks, opportunities and trends; and
- We are transparent in our disclosure of environment related opportunities and threats in our annual reporting, in accordance with the GRI Sustainability Reporting Standards.

Maintain, realise or enhance the value of our Mineral Resources and Ore Reserves

We intend to realise the potential of the resources and reserves we are entrusted to develop. We work to continually optimise our operations through sound technical and economic understanding of our resources and reserves.

Inherent risk trend 2022



Opportunities

We continue to enhance our understanding of our resources and reserves. We leverage this enhanced understanding through the annual planning cycle to define and assess additional opportunities to add value to our business.

Threats

If we fail to continually optimise our operations and projects, it will have a significant impact on shareholder returns, the benefits our stakeholders receive and ultimately, the sustainability of the company.

Risk appetite

We are not willing to take risks that inhibit our ability to realise the potential of the resources and reserves we are entrusted to develop.

Our response includes:

- We have capital prioritisation, capital allocation and planning processes which prioritise the highest-value options across our portfolio;
- We apply an annual planning process that considers the impact of climate change on our Ore Reserves, with plans structured to maximise value throughout the life of our operations;
- Drill plans and budgets are approved as part of our annual planning cycle and compliance to those plans is reported monthly. Where there is material deviation to plan, actions are taken to get us back on track;
- We apply a rigorous project development process that includes independent peer review of project risks and approval tollgates;
- We report Mineral Resources and Ore Reserves (including Coal Resources and Coal Reserves) in accordance with the JORC Code as required in Chapter 5 of the ASX Listing Rules; and
- We have an internal closure standard which requires that our full-life-of-operations value incorporates closure and rehabilitation liabilities.

Major external events or natural catastrophes

Our operations and logistics networks can be disrupted by events such as pandemics, natural disasters and extreme weather events that could impact people's wellbeing, security, the integrity of tailings facilities and key operating infrastructure.

Inherent risk trend 2022



Opportunities

Achieving stable and predictable performance enhances the value proposition to our shareholders, other stakeholders and the communities in which we operate. The better we prepare for and learn from events, the better we are placed to respond and aim to reduce the impact of future events – strengthening our organisational resilience.

Threats

Failure to manage major events or natural catastrophes could result in a significant event or other long-term damage that could harm the company's access to logistics chains and critical goods and services, financial performance, and licence to operate. The role of climate change in increasing the frequency and severity of natural catastrophes is addressed under 'Climate change and environment' on page 28.

Risk appetite

We are not willing to take risks that compromise our ability to manage natural catastrophes. However, we accept we operate in a diverse range of geographic locations, which are exposed to natural events and other external events.

Our response includes:

- When facing potential catastrophes, we put safety and wellbeing at the heart of everything we do;
- We use a system of risk management in design, construction and operation phases to analyse risks, and design and implement plans that aim to prevent or limit business impacts;
- We utilise climate modelling data to inform our long-term plans and project pipelines, and conduct physical risk assessments of our assets every two years;
- We have business continuity and disaster response plans in place with trigger action response scenarios. We have tested these to make sure we can respond rapidly to major events and safely restore our operations, protecting the health and safety of our people and the communities in which we operate;
- In line with the three lines model, we have assurance functions independent of our operating activities that provide assurance against our own comprehensive internal standards including equipment integrity, tailings dam management and technical stewardship. Where relevant, we work with external experts, relevant industry bodies and technology suppliers, to provide additional assurance and input; and
- We purchase insurance coverage against many, but not all, potential losses or liabilities arising from major events or natural catastrophes. This coverage has a deductible cost to the company and limits that mean full financial coverage cannot be achieved.

Maintain competitiveness through innovation and technology

Technology and innovation are advancing at a rapid pace. Companies which are unable to effectively leverage technology and innovation will find themselves failing to deliver against shareholder expectations on returns, unable to attract and retain talent or, in the example of decarbonisation, failing to maintain licence to operate.

Inherent risk trend 2022



Opportunities

To stay competitive, we position our organisation to effectively identify, develop and adopt sustainable business models for technology and innovation in our operations and projects. Priority innovation opportunities for South32 are identified and delivered through Innovate32, our strategy-aligned, value-focused, innovation portfolio. This approach will assist us to deliver on shareholder return expectations and position us for future business opportunities.

Threats

Failure to keep pace with, and leverage advances in, technology and innovation could result in reduced shareholder returns and impact our licence to operate.

Failure to adopt automation, electrification and digital systems could result in deteriorating performance across safety, productivity, returns and carbon emissions.

Cyber security incidents could pose multiple risks including disruption to new projects and operations, theft, disclosure or corruption of information. Conflict in Europe is resulting in increased risk in cybersecurity and disruption to technology supply chains.

Risk appetite

We are not willing to take risks that will result in a loss of data or disruptions to our operations and projects due to the theft, disclosure or corruption of information. However, aligned to our strategy, we will pursue technology and innovation that may have a higher risk profile (e.g. less certainty of success) with commensurate potential for high return on investment.

Our response includes:

- We have a clearly defined approach to innovation, improvement and technology;
- We have organised to deliver specific programs focused on adoption and improvement of critical technology capabilities across multiple time horizons including cybersecurity, connectivity, underground mine automation and decarbonisation;
- We have a value-based 'portfolio' approach to testing and scaling up innovation across the company;
- We have rigorous internal technology standards and processes (technology 'ways of working');
- We benchmark our digital technology performance against industry best practice and have organised the coordination and integration of technology advances into our growth portfolio;
- We actively manage cybersecurity and data centre risks through a system of risk management and have increased our cybersecurity controls in response to COVID-19 and an increase in remote working; and
- We monitor internal customer satisfaction and manage customer support.

Predictable operational performance

Loss of predictable operational performance could prevent us from reliably delivering on our strategic objectives. We build resilience and predictability into our business by sustaining our ability to keep our people safe and well, meeting our regulatory and social obligations, managing cost inflation and consistently providing quality products to our customers.

Inherent risk trend 2022



Opportunities

We mature our Operating System to control and continuously improve our operations and processes, so that we can deliver stable and predictable performance and unlock the full value of our business. We invest in our operations to sustain and improve production capacity that generates reliable cash flow to deliver on our strategic objectives.

Threats

If we are unable to safely and consistently achieve our production, cash flow or profitability targets, it could negatively impact our ability to deliver on our strategic objectives and negatively impact shareholder returns.

Risk appetite

We are not willing to take risks that compromise the stable and predictable performance of our operations.

Our response includes:

- We have embedded, and continuously verify and improve our safety and risk management systems across our business (including our pandemic response);
- We have an effective Asset Management system in place at each operation and review our asset health, asset integrity and capital investments on a regular basis;
- We actively verify, and improve, the effectiveness of our Operating System by embedding best operating practices including operational planning, work design and standards, process control and improvement;
- We actively manage risks to our resource and reserve, mine and operational planning including reconciliation of Mineral Resources and Ore Reserves to production, plan and spatial compliance and management of geotechnical risks;
- We manage an integrated system of long- and short-term planning and scheduling processes that considers environmental, social and governance (ESG) themes and optimises the value from our resources;
- We actively manage product delivery and supply chain risks including effective sales and operational planning processes, monitoring of raw material supply and management of target inventory operating windows; and
- We carry out rigorous quality assurance programs over our products and operations.

Delivery of our project portfolio

Delivery of our project portfolio, both brownfield development options and greenfield projects, forms a critical component of our strategy. Delivery of projects safely, on schedule and within budget allows us to optimise and unlock the value of our business.

Inherent risk trend 2022



Opportunities

The safe delivery of our project portfolio on time and within budget allows us to improve productivity, extend the life of our operations and grow volumes into structurally attractive markets.

Threats

The inability to deliver the project pipeline may impact on our future cash flows, reputation, and return on investments. Challenges to the timely and successful execution of our projects can include satisfying conditions for regulatory approval, supply chain constraints, skilled and specialist labour shortages, pricing volatility for commodities, products and services, and legal actions and activism.

Risk appetite

Aligned to our strategy of unlocking value in our business, we will not take actions that compromise the planning and execution of our major projects. However, we may accept greater levels of risk to pursue opportunities to extend the life of existing operations through brownfield projects and in executing decarbonisation projects for our assets.

Our response includes:

- We maintain a life of operations annual planning process. By evaluating the embedded options in our operations, we are continuously looking to optimise value throughout the life of our operations;
- We apply a rigorous governance approach, with our internal standards providing clear definition of project phases and tollgate requirements;
- We utilise our internal project management framework, supported by fit-for-purpose processes, procedures and systems to support project development and execution;
- We have dedicated in-house major project management capability and use a project delivery model with clearly defined accountabilities for our supporting functions;
- We apply a standardised valuation methodology with consistent key macroeconomic assumptions;
- We carry out an annual review of commodity prices and exchange rates, which we use to inform our operational plans. This process is supplemented by tri-annual updates;
- Our internal investment standards define a mature and independent peer review process, which we rigorously follow to inform key investment decisions; and
- Our joint venture agreements include a mechanism to influence project schedule and cost outcomes (such as Technical Committees and Independent Peer Reviews).

Security of supply of logistics chains and critical goods and services

The inability to secure supply of critical goods and services, such as raw materials, energy, water, gas, equipment and spare parts, consumables, technology, corporate services, labour and logistics (which includes road, rail and shipping), has the potential to impact business performance and our strategic objectives.

The procurement of critical goods and services must be undertaken in a manner that aligns to our purpose and values, meets stakeholder expectations and adheres to the policies and regulations where we operate. This includes sustainable sourcing and supporting local communities.

The security of our supply chain is heavily impacted by pandemics, jurisdictional unrest, geo-political tensions and a shift from globalism towards protectionism.

Inherent risk trend 2022



Opportunities

Optimal and sustainable management of supply chain risk positions our business to operate safely and reliably, at the lowest possible cost and in a manner that meets or exceeds the expectations of our stakeholders. It also provides us with the ability to influence how others in our industry approach sustainable sourcing and to position us to benefit as trade flows respond to rising protectionism, social consciousness and general trends to de-risk value chains.

Threats

The disruption of our inbound and outbound supply chains could materially impact our operations by affecting production, operating costs and our reputation.

Failure to meet minimum ethical supply chain standards has the potential to damage our social licence to operate (this is further addressed under 'Evolving societal expectations' on page 34).

Climate change has the potential to increase the frequency and severity of extreme weather events which may threaten our supply chains, particularly logistics and the availability of critical goods and services (this is addressed under 'Climate change and environment' on page 28).

Risk appetite

Aligned to our strategy of optimising our business, we are not willing to take undue risks that compromise the security of our supply chain logistics and critical services. However, we accept that we have a strong reliance on certain critical suppliers, particularly to provide energy, logistics and raw materials to our operations and we have limited ability to reduce this reliance.

Our response includes:

- We understand, assess and continually monitor the risks in our supply chains through an integrated system that considers the supply of critical goods and services. This includes risks relating to potential shortages, critical suppliers and categories, vendor liquidity, logistics, climate change and decarbonisation, and modern slavery. Internal and external data is integrated so we have an accurate understanding of existing and emerging risks and can take action to mitigate;
- We use this understanding of risk to deploy controls to support predictable operations. This includes working closely with our vendors and operations to better match availability with demand; understanding options for alternative sources of supply and implementing multi-source supply where required; optimising inventory levels; flexing commercial terms and maintaining up-to-date business continuity plans. We continually optimise our approach between 'just in case' and 'just in time' as supply chain risk ebbs and flows;
- We build strong strategic partnerships with key suppliers on a long-term, mutually beneficial basis;
- We have a clearly defined transformation strategy and enterprise and supplier development programs in South Africa aimed at building and growing small, medium and micro enterprises;
- We have Reconciliation Action Plan targets to develop and support Aboriginal and Torres Strait Islander enterprises in Australia;
- We have local procurement initiatives designed to increase opportunities for local suppliers;
- We actively review and manage payment terms to support small and local businesses in all jurisdictions in which we operate; and
- We have an established process to assess and mitigate modern slavery risks.

Shaping our culture and managing diverse talent

We must actively shape our culture to attract, develop, support, and retain our highly talented people to deliver safe, predictable performance and continuously improve. To keep pace with the evolving needs of our people, business and broader stakeholders, we review our culture and seek feedback so that we can capture learnings and enhance the South32 experience to remain an employer of choice.

Inherent risk trend 2022



Opportunities

By fostering an environment that is conducive to our aspired culture, we will have even higher levels of employee engagement and teams that are empowered to innovate and drive performance.

By having an inclusive and diverse workplace, in every aspect, we can improve our ability to attract and retain talent, and better deliver safety and operational performance, together.

Our flexible work practices and global operating model provides greater access to talent which can be positioned across the company to better meet business challenges and capture opportunities.

Threats

If we are unable to embed our preferred culture, we will likely have lower levels of engagement, disconnected teams that lack diversity and operate in silos, and relationship rather than performance-based decision making. Over time, this may constrain innovative thinking and may lead to significant shareholder value erosion and reputational damage.

A stimulus related recovery in commodity markets has seen competition for talent rise and voluntary turnover rates increase, while COVID-19 has restricted travel and limited face-to-face interaction between our key leaders and geographically dispersed talent pool.

Risk appetite

People underpin everything we do and we are not willing to take risks that could negatively impact our culture and the way our people connect to our purpose. However, we recognise our size and the competitive labour market in which we operate and therefore must be willing to take risk to build our talent and succession pipeline.

Our response includes:

- We actively measure and discuss culture using a Culture Tensions framing model. This process acts as a health check and allows us to assess positive or negative change and test whether we are making progress towards our preferred culture that better balances relationships with performance and systems and processes with innovation and empowerment. This process is supplemented by periodic Your Voice employee surveys that measure employee engagement and test whether our culture is enabling the delivery of our strategic objectives;
- We have an internal Inclusion and Diversity Policy, standard and framework which sets out our commitments, strategy, measurable objectives and approach to performance reporting;
- Our Code of Business Conduct sets out our expected standards of conduct, with formal training and assessment routines in place. Anyone can report a business conduct concern, anonymously if preferred, or by using our confidential and independently administered reporting hotline;
- We have a leadership model which strengthens alignment to our preferred culture and behaviours, and is integrated across our people systems and processes;
- We have a performance and goals process which supports our reward philosophy, and recognises and rewards aligned leadership behaviours and performance;
- We design our reward elements to position ourselves relative to the market, enabling us to attract appropriate skills and experience, engage employees and improve performance;
- We routinely review our key talent and critical role successors globally, creating individualised plans to further their development and address talent pipeline risks as appropriate. This includes targeted retention programs for key talent and/or team members occupying critical roles;
- We support employees who undertake further education and training related to their current or future career with South32;
- We utilise secondments to support the delivery of business objectives while also providing employees with development opportunities and exposure to other roles or areas of the business; and
- We have an internal flexible work standard which empowers our leaders to engage with their teams to determine the ways of working that balance individual, team and business requirements.

Evolving societal expectations

The expectations of resource companies by employees, governments, investors, lenders, host communities, non-governmental organisations (NGOs) and broader society continue to evolve.

In order to keep pace with these rapidly evolving expectations and understand the potential impact to our business performance, reputation and delivery of our strategic objectives, we maintain an active stakeholder engagement program and undertake external monitoring on a wide range of financial and ESG issues, including climate change.

We regularly engage our stakeholders to understand and respond to their views, which may be divergent, and aim to identify ways we can create enduring social, environmental and economic value.

Inherent risk trend 2022



Opportunities

Proactive, collaborative and transparent engagement with our stakeholders builds relationships based on trust and shared understanding. Our ongoing licence to operate is built on our contribution to our stakeholders and broader society.

Threats

Failure to meet evolving societal expectations for ESG performance could damage our reputation and negatively impact our licence to operate, limiting our ability to access capital, retain and attract employees and grow our business in existing and new jurisdictions.

Risk appetite

We are not willing to take risks that will result in a failure to meet societal expectations, in human rights, cultural heritage, modern slavery and community safety. However, we accept that we will be required to take some risks in areas such as impacts of mining (e.g. on the environment) and commodity selection that may not completely align with societal expectations.

Our response includes:

- Our purpose and strategy expressly balance economic outcomes with social and environmental outcomes, now and into the future. In the decisions we take, we look to minimise impact, respect human rights and create enduring social, environmental and economic value for all our stakeholders;
- We undertake internal and external stakeholder analysis and engagement on a wide range of financial and ESG issues, including an annual materiality process to understand our material ESG issues. Our approach is aligned with the ICMM Mining Principles, The United Nations Global Compact (UNGC) Ten Principles and Global Reporting Initiative (GRI) Sustainability Reporting Standards;
- We work to build strong, positive and meaningful relationships with local communities. We regularly complete and review community perception surveys, human rights impact assessments, social baseline studies and social impact and opportunity assessments to improve our understanding of the communities in which we operate;
- We review and amend our community investment program annually to align with community and stakeholder priorities. We measure the outputs and outcomes of our community investments to better understand their impact;
- We engage with Indigenous, Traditional and Tribal Peoples across our operations to build mutual understanding and strengthen cultural heritage management. Our engagement with Indigenous, Traditional and Tribal Peoples throughout the life of our operations is sensitive to and respects cultural protocols;
- We participate in sustainability reporting transparency initiatives and ESG rating agency reviews that assess and score our performance; and
- We report on our risks, opportunities, regulatory obligations, commitments and areas where we are working that are relevant to our stakeholders.

Political risks, actions by government and/or authorities

Changes in legislation, regulation, policy and geopolitical activity have the potential to impact our strategic objectives and the way we work. This includes broader policy decisions and regulatory changes, related but not limited to, changes to royalty and taxation policy, nationalisation of mineral resources, supply chains, renegotiation or nullification of contracts, leases, permits or agreements, and environmental and social performance requirements.

We aim to effectively manage this uncertainty through engagement with key stakeholders and industry associations, monitoring of political activity, policy, legislative and regulatory changes, and by having access to specialised knowledge.

Inherent risk trend 2022



Opportunities

Proactive engagement leading to strong relationships with governments and authorities provides a mutual understanding of drivers for decision-making. This increases clarity around policy and regulatory environments, enables appropriate and tailored responses to issues and provides investment certainty.

Threats

Legislation adverse to our business and regulatory or policy decisions taken by governments or authorities, particularly relating to societal expectations, can result in operational disruption, permitting uncertainty, affect future planning or lead to cessation of operations or non-investment in operations or projects.

Risk appetite

We have a low appetite for activities that are likely to result in non-compliance with applicable legal or regulatory requirements. We maintain programs that seek to comply with those requirements. However, there can be no guarantee that such programs will always be effective to identify or prevent breaches of the law. Further, we operate in certain complex environments and jurisdictions, which are subject to legislative, regulatory or government policy changes that may adversely impact our business. Therefore, there will always be residual risk in relation to compliance with legal and regulatory requirements and changes to those requirements that may adversely impact our business.

Our response includes:

- We have specialised knowledge through in-house expertise or the use of external experts, including tax management capability, tax advice and external affairs advice;
- We monitor political activity, policy, and legislative and regulatory changes in the jurisdictions where we operate, and we also engage with relevant authorities, to understand and mitigate potential impacts on our business performance;
- We engage with key stakeholders in all jurisdictions where we operate, in accordance with our stakeholder engagement plans;
- We work through selected industry associations to influence how the industry is positioned; and
- We produce an annual Tax Transparency and Payments to Governments Report, which shows how we meet our regulatory tax obligations.

Global economic uncertainty and liquidity

We prioritise an investment grade credit rating and a disciplined approach to allocating capital which aims to keep our balance sheet strong, providing us with financial flexibility regardless of market conditions. By creating competition for capital and investing selectively in our existing operations, growth options and external opportunities, or by making returns to shareholders, we aim to maximise total shareholder returns over time.

Inherent risk trend 2022



Opportunities

By investing selectively in our existing operations and growth options, external opportunities, or by making returns to shareholders, we aim to maximise total shareholder returns over time.

Threats

A significant or sharp deterioration in economic conditions can adversely impact market demand, commodity prices, and/or exchange rates which has the potential to significantly reduce profitability, cash flow and returns to shareholders. An increase in volatility, especially when it has an impact on in-bound and out-bound supply chains, has the potential to increase working capital requirements, affecting our liquidity. A reduction in liquidity available in capital markets has the potential to impact our balance sheet and ability to pursue our strategy.

Risk appetite

We are not willing to take risks that may limit our ability to maintain a minimum liquidity balance and/or access to funding on acceptable terms. We recognise that our preferred commodity basket and our operating costs have the potential for price and exchange rate volatility outside of our control, and while we accept that as a resource company we are exposed to this inherent risk, we will act to reduce its impact by understanding its effect on our business.

Our response includes:

- We have a diverse portfolio of operations, commodities and end markets which strengthens our resilience to the disruption of any one commodity, geography or operation;
- We prioritise a strong balance sheet and an investment grade credit rating, with the aim of remaining resilient through economic cycles;
- We test our financial strength across a range of scenarios, including a depressed demand and pricing environment. We also maintain a minimum liquidity buffer and access to a diverse range of funding sources;
- We adjust our capital allocation plans according to market conditions;
- We maintain strong relationships with high-quality financial institutions, customers and suppliers from all around the world;
- We mostly sell our products with reference to floating, market-based prices, which are broadly correlated with floating global currency markets and the input costs we are exposed to; and
- We carry out an annual review of commodity prices and exchange rates, which we use to inform our operational plans. This process is supplemented by tri-annual updates.

DELIVERING STABLE OPERATING AND STRONG FINANCIAL PERFORMANCE

We accelerated our portfolio transformation and delivered record earnings, cash flow and shareholder returns in respect of FY22.

The Group uses both International Financial Reporting Standards (IFRS) and non-IFRS financial measures such as underlying measures of earnings, effective tax rate (ETR), return on invested capital (ROIC), cash flow and net cash, to assess the Group's performance. The Directors believe that the non-IFRS measures are important when assessing the underlying financial and operating performance of the Group and its operations. The meanings of individual non-IFRS measures used in this report are set out in the Glossary on page 184.

The basis of the Group's underlying financial results is included on page 112 in note 4 to the financial statements, which has been updated from FY22 to reflect the Group's interest in material equity accounted joint ventures on a proportional consolidation basis. FY21 comparative information has been updated to reflect this change. We believe that Underlying earnings before interest, tax, depreciation and amortisation (EBITDA), Underlying earnings before interest and tax (EBIT) and Underlying earnings provide useful information, but should not be considered as an indication of, or an alternative to, profit/(loss) after tax as an indicator of actual operating performance or as an alternative to cash flow as a measure of liquidity.

In discussing the operating results of the Group, the focus is on Underlying earnings and ROIC. Underlying earnings is the key measure that is used by the Group to assess its performance, make decisions on the allocation of resources and assess senior management's performance.

In addition, the performance of each of the Group's operations and operational management is assessed based on Underlying EBIT. Management uses this measure because financing structures and tax regimes differ across the Group's operations and substantial components of tax and interest charges are levied at a Group level rather than an operational level.

In order to calculate Underlying EBITDA, Underlying EBIT and Underlying earnings, the following items are adjusted as applicable each period, irrespective of materiality:

- Exchange rate (gains)/losses on restatement of monetary items;
- Impairment losses/(reversals);
- (Gains)/losses on disposal and consolidation of interests in operations;
- (Gains)/losses on non-trading derivative instruments, contingent consideration and other investments measured at fair value through profit or loss;
- Major corporate restructures;
- Joint venture adjustments for material equity accounted investments;
- Exchange rate variations on net debt;
- Tax effect of earnings adjustments; and
- Exchange rate variations on tax balances.

In addition, items that do not reflect the underlying operations of South32, and are individually, or in combination with other related earnings adjustments, significant to the financial statements, are excluded to determine Underlying earnings.

Financial key performance indicators for FY22

Financial highlights⁽¹⁾⁽²⁾

US\$M	FY22	FY21	Change
Revenue	9,269	5,476	69%
Profit/(loss) before tax and net finance costs ⁽³⁾	3,724	(94)	N/A
Profit/(loss) after tax and net finance costs	2,669	(195)	N/A
Basic earnings per share (US cents) ⁽⁴⁾	57.4	(4.1)	N/A
Ordinary dividends per share (US cents) ⁽⁵⁾	22.7	4.9	363%
Special dividends per share (US cents) ⁽⁵⁾	3.0	2.0	50%
Other financial measures⁽³⁾			
Underlying revenue ⁽⁶⁾	10,630	7,323	45%
Underlying EBITDA	4,755	1,856	156%
Underlying EBITDA margin	47.1%	26.4%	20.7%
Underlying EBIT	3,967	1,039	282%
Underlying EBIT margin	39.4%	14.8%	24.6%
Underlying earnings	2,602	489	432%
Basic Underlying earnings per share (US cents) ⁽⁴⁾	56.0	10.3	444%
ROIC	30.1%	6.2%	23.9%
Ordinary shares on issue (million)	4,628	4,675	(1%)

- (1) South Africa Manganese ore has been reported as a 54.6 per cent interest (previously 60 per cent) aligning with our interest in Hotazel Manganese Mines (HMM). South32 has a 44.4 per cent ownership interest in HMM. 26 per cent of HMM is owned by a Broad-Based Black Economic Empowerment (B-BBEE) consortium comprising Ntsimbintle Mining (nine per cent), NCAB Resources (seven per cent), Iziko Mining (five per cent) and HMM Education Trust (five per cent). The interests owned by NCAB Resources, Iziko Mining and HMM Education Trust were acquired using vendor finance with the loans repayable via distributions attributable to these parties, pro rata to their share in HMM. Until these loans are repaid, South32's interest in HMM is accounted at 54.6 per cent.
- (2) During the current financial reporting period the internal reporting of the Group's consolidated financial results was changed, with these changes also reflected in the FY21 comparative information. The underlying information reflects the Group's interest in material equity accounted investments and is presented on a proportional consolidation basis, which is the measure used by the Group's Board and management to assess their performance.
- (3) FY21 includes Tasmanian Electro Metallurgical Company (TEMCO) and discontinued operation South Africa Energy Coal.
- (4) FY22 basic earnings per share is calculated as Profit/(loss) after tax divided by the weighted average number of shares for FY22 (4,647 million). FY22 basic Underlying earnings per share is calculated as Underlying earnings divided by the weighted average number of shares for FY22. FY21 basic earnings per share is calculated as Profit/(loss) after tax divided by the weighted average number of shares for FY21 (4,771 million). FY21 basic Underlying earnings per share is calculated as Underlying earnings divided by the weighted average number of shares for FY21.
- (5) FY22 ordinary dividends per share is calculated as H1 FY22 ordinary dividend announced (US\$405 million) divided by the number of shares on issue at 31 December 2021 (4,650 million) plus H2 FY22 ordinary dividend announced (US\$648 million) divided by the number of shares on issue at 30 June 2022 (4,628 million). FY22 special dividends per share is calculated as H2 FY22 special dividend announced (US\$139 million) divided by the number of shares on issue at 30 June 2022 (4,628 million).
- (6) Underlying revenue includes revenue from third party products and services.

External factors and trends affecting the Group's result

The following describes the main external factors and trends that have had a material impact on the Group's financial position and results of operations during the financial year. Details of the Group's most significant risk factors and how they are mitigated can be found in Risk management on pages 26 to 35 of the Annual Report.

Management monitors particular trends arising from external factors with a view to managing the potential impact on the Group's future financial position and results of operations.

Commodity prices and changes in product demand and supply

South32 produces metals, concentrates and ores, for which prices are driven by global demand and supply for each of these commodities. Commodity prices were generally higher in FY22 compared to FY21 as most physical markets strengthened on the back of global economic recovery following the easing of COVID-19 restrictions and supply constraints. The prices that the Group obtains for its products are a key driver of business performance, and fluctuations in these markets affect our results, including cash flows and shareholder returns.

Estimated impact on Underlying EBIT of a +/- 10% change in commodity price

US\$M	FY22
Aluminium ⁽¹⁾	316
Metallurgical coal ⁽²⁾	220
Alumina	212
Manganese ore	104
Nickel	81
Copper ⁽³⁾	25
Silver	26
Lead	24
Zinc	21

- (1) Aluminium sensitivity shown without any associated increase in alumina pricing.
- (2) Includes metallurgical and energy coal at Illawarra Metallurgical Coal.
- (3) Includes molybdenum, gold, and silver at Sierra Gorda.

Financial and operational performance summary continued

The following table shows the quoted market prices of the Group's most significant commodities in FY22 and FY21. These prices differ from the realised prices on the sale of production due to contracts to which the Group is a party, differences in quotational periods, quality of products, delivery terms and the range of quoted prices that are used for contracting sales in different markets.

Quoted commodity prices

Year ended 30 June	Average Value			Closing Value		
	FY22	FY21	Change	FY22	FY21	Change
Alumina ⁽¹⁾ (US\$/t)	382	283	35%	367	286	28%
Aluminium (LME Cash) ⁽²⁾ (US\$/t)	2,889	2,023	43%	2,397	2,523	(5%)
Copper (LME Cash) ⁽²⁾ (US\$/t)	9,651	7,962	21%	8,245	9,352	(12%)
Silver ⁽³⁾ (US\$/toz)	23.6	25.4	(7%)	20.4	25.8	(21%)
Lead (LME Cash) ⁽²⁾ (US\$/t)	2,304	1,978	16%	1,907	2,320	(18%)
Zinc (LME Cash) ⁽²⁾ (US\$/t)	3,509	2,653	32%	3,252	2,946	10%
Nickel (LME Cash) ⁽²⁾ (US\$/t)	23,547	16,241	45%	23,100	18,450	25%
Metallurgical coal ⁽⁴⁾ (US\$/t)	390	122	220%	302	194	56%
Manganese ore ⁽⁵⁾ (US\$/dmu)	6.16	4.63	33%	7.27	5.15	41%

(1) Platts Alumina Index (PAX) Free on Board (FOB) Australia – market price assessment of calcined metallurgical/smelter grade alumina.

(2) London Metal Exchange (LME) Cash represents the Official Seller price for nickel, copper, lead, zinc, and the A.M. official price for aluminium.

(3) Daily London Bullion Market Association (LBMA) Silver Fix.

(4) Platts Low-Vol Hard Coking Coal Index FOB Australia – representative of high-quality hard coking coals.

(5) FastMarkets Manganese Ore 44 per cent Mn Cost, Insurance, and Freight (CIF) Tianjin China.

The following summarises the pricing trends of our most significant commodities for FY22. The price change reflects the average of FY22 over FY21.

Alumina: The average FOB Australia price for the year was 35 per cent higher than FY21 driven by supply disruptions due to the Russia-Ukraine war. However, the price increase was moderated in the last quarter as new alumina supply came online in China.

Aluminium: The average LME cash settlement price for the year was 43 per cent higher than FY21. The price increase was driven by improving global demand and the rising cost of aluminium production stemming from the tightening energy complex. Towards the end of FY22, price momentum was moderated by China's COVID-19 lockdowns and an acceleration in US interest rate increases.

Copper: The FY22 average LME cash settlement price was 21 per cent higher than FY21. Prices were supported by lower than expected mine supply in Chile and expectations of strong long-term demand. Prices fell in the last quarter as US interest rate increases accelerated and concerns around macroeconomic risks and expectations of new supply growth over the next few years increased.

Silver: The FY22 average LBMA silver price was seven per cent lower than FY21. The price fall was underpinned by the accelerated pace of US interest rate increases, designed to mitigate inflation, tempering investment appetite for silver.

Lead: The FY22 average LME cash settlement price was 16 per cent higher than FY21 despite underperformance of global automotive sales in FY22.

Zinc: The FY22 average LME cash settlement price was 32 per cent higher than FY21. Smelter disruptions, coupled with elevated energy prices stemming from the Russia-Ukraine war, continued to provide price support.

Nickel: The FY22 average LME cash settlement price was 45 per cent higher than FY21, driven by strong demand, low inventories, Russian supply concerns and elevated derivatives trading activity. Prices eased in the last quarter of FY22 due to demand concerns globally.

Metallurgical coal: The FY22 average Platts Premium Low-Vol Hard Coking Coal price was 220 per cent higher than FY21. The higher prices reflected a recovery in ex-China pig iron output in the first half of the year leading to increased demand, while supply from major seaborne exporting regions remained constrained by weather induced disruptions and the impact of COVID-19 on operations.

Manganese ore: The average Manganese Ore Metal Bulletin 44 per cent Mn CIF China price was 33 per cent higher than FY21. Global demand recovery and tightness of high-grade seaborne ore supplies due to weather and logistical disruptions provided support to prices.

Exchange rates

Global risk sentiment, central bank monetary policy and commodity prices continue to be key drivers of currency markets. In FY22, producer currencies generally weakened against the US dollar, reversing gains from the previous financial year, as the US Federal Reserve accelerated interest rate increases to mitigate inflationary pressures. This was intensified in the last quarter of FY22 when commodity prices declined, and the US dollar gained strength as a safe haven amidst growing concerns on economic growth.

The Group is exposed to exchange rate risk on foreign currency sales, purchases and expenses, as no active currency hedging is undertaken. As the majority of sales are denominated in US dollars, and the US dollar plays a dominant role in the Group's business, funds borrowed and held in US dollars provide a natural hedge to currency fluctuations. Operating costs and costs of locally-sourced equipment are influenced by fluctuations in local currencies, primarily the Australian dollar, Brazilian real, Colombian peso, Chilean peso and South African rand.

The Group is also exposed to exchange rate translation risk in relation to net monetary liabilities, being foreign currency denominated monetary assets and liabilities, including debt, tax and other long-term liabilities. Details of the exposure to foreign currency fluctuations are set out in note 19 to the financial statements on pages 140 to 150.

The following table indicates the estimated impact on FY22 Underlying EBIT of a change in the significant currencies to which the Group is exposed against the US dollar. The sensitivities give the estimated impact on Underlying EBIT based on the exchange rate movement in isolation. The sensitivities assume all variables except for exchange rates remain constant. There is an inter-relationship between currencies and commodity prices where movements in exchange rates can cause movements in commodity prices and vice versa. This is not reflected in the sensitivities below. These sensitivities should therefore be used with care.

Estimated impact on Underlying EBIT of a +/-10% change in producer currencies relative to the US dollar

US\$M	FY22
Australian dollar	201
South African rand	109
Colombian peso	30
Brazilian real	15
Chilean peso	4

The following table shows the average and period end closing exchange rates of the most significant currencies that affect the Group's results:

Exchange rates⁽¹⁾

Year ended 30 June	FY22	Average Value FY21	Change	FY22	Closing Value FY21	Change
Australian dollar ⁽²⁾	0.73	0.75	(3%)	0.69	0.75	(8%)
South African rand ⁽³⁾	15.22	15.42	1%	16.26	14.33	(13%)
Colombian peso ⁽³⁾	3,903	3,660	(7%)	4,127	3,757	(10%)
Brazilian real ⁽³⁾	5.24	5.39	3%	5.24	5.00	(5%)
Chilean peso ⁽³⁾	812	746	(9%)	924	727	(27%)

(1) Positive per cent change in foreign exchange indicates strengthening currency relative to US\$.

(2) Displayed as US\$ per A\$ based on common convention.

(3) Displayed as local currency per US\$.

Other external factors

The macroeconomic environment remained highly volatile and uncertain through FY22. The Group's results were impacted by industry-wide inflationary pressures most notably on raw material input prices, freight rates and energy costs. These impacts were further exacerbated by volatility in oil prices, which traded 66 per cent higher in FY22 compared to FY21, as demand strengthened and Russian suppliers faced sanctions as a result of the Russia-Ukraine conflict, coupled with COVID-19 related impacts.

While there remains a gap between global climate change ambition and action, activity in carbon offset and credit markets was supported by more countries and companies pledging long-term net zero targets or strengthening short-term emissions reduction goals. During FY22, we saw strong environmental initiatives and wider coverage of legislated carbon pricing, particularly after the 26th United Nations Climate Change Conference in November 2021. In Australia, the newly elected Labor Party committed to cutting national emissions by 43 per cent in 2030 from a 2005 baseline, compared to the previous Coalition government's target of a 26-29 per cent reduction. Australian carbon credit units (ACCUs) were, on average, A\$18 per tonne higher in FY22 as compared to FY21, reaching A\$35 per tonne at the close of FY22. In South Africa, the headline carbon tax rate was raised by seven per cent to ZAR144 per tonne (US\$9.50 per tonne) and the government proposed to further increase it to US\$120 per tonne beyond 2050 as part of the planned two-phase transition.

Our Australian and South African operations are subject to emissions reporting and domestic carbon pricing regimes. Carbon pricing policies and associated regulatory mechanisms may restrict emissions or increase costs for companies with liable emissions. We annually review the signposts for changes in carbon pricing policy and integrate this work into our annual carbon price review and planning processes.

2022 Financial year summary

Performance summary

The Group's statutory profit after tax increased by US\$2,864 million to a record US\$2,669 million in FY22. We achieved this record result as our stable operating performance and portfolio changes that increased our exposure to higher margin businesses enabled us to capitalise on the significant tailwind of commodity prices, offsetting the impact of adverse weather and ongoing COVID-19 related labour restrictions at a number of operations. Underlying earnings increased by US\$2,113 million to a record US\$2,602 million in FY22.

Underlying revenue increased by 45 per cent to US\$10,630 million as we implemented innovative logistics solutions to mitigate challenging freight and third-party port performance to deliver volumes into favourable markets, capturing the benefit of higher prices. This translated to a record operating margin of 47 per cent (FY21: 26 per cent), as we held increases in controllable costs to less than two per cent of the Group's total cost base for the year. Underlying EBITDA increased by US\$2,899 million to a record US\$4,755 million and Underlying EBIT increased by US\$2,928 million to a record US\$3,967 million as the Group delivered a 30.1 per cent return on invested capital.

We generated record free cash flow from operations of US\$2,561 million, including distributions from our manganese and Sierra Gorda equity accounted investments. Our strong financial performance supported our continued investment in our business and portfolio changes, that have increased our exposure to metals critical for a low-carbon future, while delivering record returns to shareholders. We finished the period with net cash of US\$538 million having executed our inaugural US dollar bond during the period, issuing US\$700 million in Senior Unsecured Notes (Notes) to support the funding of our Sierra Gorda acquisition.

Specific highlights for FY22 included:

- Group copper equivalent production was 99 per cent of guidance, as the majority of operations delivered to revised plans, despite adverse impacts from weather and labour availability caused by the COVID-19 pandemic;
- Worsley Alumina continued to operate above nameplate capacity, achieving record annual production;
- Hillside Aluminium and Mozal Aluminium continued to test their maximum technical capacity, despite the impact of higher load-shedding, capitalising on strong aluminium prices to deliver record operating margins;
- Cannington transitioned to 100 per cent truck haulage, while also beating our already increased production guidance; and
- Cerro Matoso achieved a 22 per cent increase in payable nickel production, benefitting from improved plant availability following the prior period's furnace refurbishment and higher-grades from our investment in the Queresas and Porvenir project.

We returned US\$1,320 million to our shareholders in respect of FY22 comprising:

- US\$1,053 million fully-franked ordinary dividends, which includes the US\$648 million fully-franked final ordinary dividend in respect of H2 FY22; and
- US\$267 million as part of our ongoing capital management program, with US\$128 million allocated to our on-market share buy-back (46 million shares at an average price of A\$3.89 per share), and a US\$139 million fully franked special dividend in respect of H2 FY22.

From day one we have established a successful track record for disciplined capital allocation and returning excess cash to shareholders in both a timely and efficient manner, buying back 13 per cent of our shares on issue since commencing our capital management program at an average price of A\$2.93 per share. Reflecting our strong financial position and disciplined approach to capital management, the Board further expanded our capital management program by US\$156 million to US\$2.3 billion, leaving US\$250 million to be returned by 1 September 2023.

In FY22, we made substantial progress reshaping our portfolio towards metals critical for a low-carbon future by:

- Adding copper exposure through the acquisition of a 45 per cent interest in the Sierra Gorda copper mine;
- Increasing our low-carbon aluminium production capacity by more than 100 per cent, acquiring an additional 16.6 per cent shareholding in Mozal Aluminium and participating in the restart of the Brazil Aluminium smelter;
- Acquiring an additional 18.2 per cent interest in the Mineração Rio do Norte (MRN) bauxite mine, taking our ownership to 33 per cent, and further aligning our bauxite supply requirements within our Brazilian aluminium value chain;
- Completing a pre-feasibility study for the zinc-lead-silver Taylor Deposit, confirming its potential to be the first development at our Hermosa project;
- Advancing study work on our battery-grade manganese Clark Deposit at our Hermosa project; and
- Continuing our investment in greenfield exploration to discover our next generation of base metals mines, spending US\$26 million across the Americas, Australia and Europe.

We are well positioned heading into FY23, given our growing production profile and strong balance sheet, and will continue to pursue cost efficiencies to provide partial relief from industry-wide inflationary pressures.

Earnings

The Group's statutory profit after tax increased by US\$2,864 million from a loss of US\$195 million to a record US\$2,669 million in FY22.

Consistent with our accounting policies, various items are excluded from the Group's statutory profit/(loss) to derive Underlying earnings. The total adjustments to derive Underlying EBIT (US\$243 million) include the recognition of indirect tax assets following the restart of the Brazil Aluminium smelter (US\$77 million pre-tax) and a net impairment loss of non-financial assets (US\$145 million pre-tax) primarily related to our Eagle Downs Metallurgical Coal development option (US\$183 million pre-tax), partially offset by an impairment reversal for Brazil Aluminium (US\$42 million pre-tax). Further information on these earnings adjustments is included on page 118.

The Group's Underlying EBITDA increased by US\$2,899 million (or 156 per cent) to a record US\$4,755 million as we benefitted from the significant tailwind of commodity prices (US\$3,666 million) and we limited increases in our controllable costs (US\$114 million or two per cent of our total cost base). Uncontrollable costs increased by US\$839 million with significantly higher price-linked royalties and industry-wide inflation, most notably in raw material prices and distribution costs. Portfolio changes, including the divestment of lower returning businesses South Africa Energy Coal and Tasmanian Electro Metallurgical Company (TEMCO), combined with the acquisition of our 45 per cent interest in the Sierra Gorda copper mine and additional shareholding in Mozal Aluminium had a positive US\$211 million impact on the result.

The Group also achieved record Underlying EBIT of US\$3,967 million in FY22, increasing by US\$2,928 million (or 282 per cent) on the prior year as Underlying depreciation and amortisation reduced by US\$29 million to US\$788 million following the prior period impairment at Illawarra Metallurgical Coal.

Operating costs

FY22 and FY21 comparative underlying operating costs are set out below, excluding earnings adjustment items impacting operating costs. Earnings adjustment items are detailed on page 118 in note 4(b)(i) to the financial statements.

US\$M	FY22	FY21
Operating cash costs	5,411	5,255
Third party commodity purchases	570	392
Depreciation and amortisation expense	788	817
Total operating costs included in Underlying EBIT	6,769	6,464

Capital expenditure

We allocate capital in line with our strategy and capital management framework to optimise our business, unlock the full value of operations and identify and pursue opportunities to create value. In FY22 the Group continued to prioritise capital for the safety and reliability of our operations, to progress life extension and innovation and improvement projects, and to fund our current and future greenfield growth to sustainably grow ROIC.

US\$M	FY22	FY21
Safe and reliable capital expenditure	(367)	(325)
Improvement and life extension capital expenditure	(58)	(63)
Growth capital expenditure	(97)	(72)
Intangibles and the capitalisation of exploration expenditure	(37)	(30)
Divested operation – South Africa Energy Coal	–	(76)
Total capital expenditure (excluding equity accounted investments)	(559)	(566)
Equity accounted investment capital expenditure	(164)	(70)
Equity accounted investment divested operation – TEMCO	–	(1)
Total capital expenditure (including equity accounted investments)	(723)	(637)

Total capital expenditure, excluding equity accounted investments, decreased by US\$7 million in FY22 to US\$559 million, following the divestment of South Africa Energy Coal (FY21: US\$76 million) in June 2021:

- Safe and reliable capital expenditure increased by US\$42 million (or 13 per cent) in FY22 to US\$367 million as we invested in longwall equipment and ventilation infrastructure at Illawarra Metallurgical Coal, and bauxite residue disposal capacity at our alumina refineries;
- Improvement and life extension capital expenditure decreased by US\$5 million (or eight per cent) in FY22 to US\$58 million as our investment in aluminium smelter efficiency projects and the Ore Sorting and Mechanical Ore Concentration (OSMOC) project at Cerro Matoso, was more than offset by reduced activity on the Dendrobium Next Domain project at Illawarra Metallurgical Coal;
- Growth capital expenditure increased by US\$25 million (or 35 per cent) in FY22 to US\$97 million as we invested in the construction of infrastructure to support orebody dewatering for the Taylor Deposit at our Hermosa project; and
- Our spend on intangibles and capitalised exploration increased by US\$7 million (or 23 per cent) in FY22 to US\$37 million as we stepped-up our exploration activity at Hermosa and Ambler Metals.

In addition, capital expenditure associated with our share of our manganese and Sierra Gorda equity accounted investments was US\$164 million with the inclusion of Sierra Gorda (US\$81 million) and our ongoing investment in further tailings storage capacity at Australia Manganese. Our spend at Sierra Gorda, following our acquisition of the 45 per cent interest in February 2022, was primarily directed towards deferred stripping activity and the continued execution of the plant's de-bottlenecking project.

Net finance costs

The Group's FY22 Underlying net finance costs of US\$155 million comprise the unwinding of the discount applied to our closure and rehabilitation provisions (US\$83 million), interest on lease liabilities (US\$54 million) primarily at Worsley Alumina, interest and transaction costs associated with the Notes issue and refinancing of our revolving credit facility (US\$14 million) and our share of net finance costs for the Sierra Gorda joint venture (US\$6 million).

Tax expense

The Group's FY22 Underlying income tax expense increased by US\$830 million to US\$1,210 million for an Underlying ETR of 31.7 per cent. Our FY22 Underlying ETR has reduced significantly from the prior period's elevated rate (FY21: 43.3 per cent), following the derecognition of tax assets associated with the divestment of South Africa Energy Coal in the prior period.

Our FY22 Underlying ETR reflects the corporate tax rates of the jurisdictions in which we operate, as well as the inclusion of the manganese business and Sierra Gorda in Underlying earnings on a proportional consolidation basis (including royalty related taxes for Australia Manganese and Sierra Gorda). The Underlying ETR for our manganese business was 45.8 per cent in FY22, including the royalty related tax and the derecognition of certain deferred tax assets.

Cash flow

The Group generated record free cash flow from operations of US\$2,240 million and received US\$321 million in net distributions from our manganese and Sierra Gorda equity accounted investments in FY22. Our record result benefited from the implementation of innovative logistic solutions across multiple operations to mitigate the impact of ongoing port congestion, which contributed to our strong sales performance during FY22. Record profitability also gave rise to a significant increase in income tax payments made during the period (up US\$705 million to US\$868 million), excluding tax paid within our manganese and Sierra Gorda equity accounted investments.

Financial and operational performance summary continued

Free cash flow from operations, excluding equity accounted investments

US\$M	FY22	FY21
Profit/(loss) from continuing and discontinued operations	3,724	(94)
Non-cash items	694	1,419
(Profit)/loss from equity accounted investments	(272)	(133)
(Profit)/loss from sale of operations	–	159
Change in working capital	(428)	61
Cash generated	3,718	1,412
Total capital expenditure, excluding equity accounted investments, including intangibles and capitalised exploration	(559)	(566)
Operating cash flows before financing activities and tax, and after capital expenditure	3,159	846
Interest (paid)/received ⁽¹⁾	(51)	(44)
Income tax (paid)/received	(868)	(163)
Free cash flow from operations	2,240	639

(1) FY22 net distributions from our material equity accounted joint ventures comprises dividends and capital returns (US\$224 million) and a net repayment of shareholder loans (US\$29 million) from manganese and a distribution (US\$68 million) from Sierra Gorda. The distribution from Sierra Gorda comprises US\$21 million of principal repayments and US\$47 million of accrued interest.

The working capital build of US\$428 million was mainly attributable to:

- Trade and other receivables increasing by US\$300 million as we realised higher commodity prices, and delivered a strong sales result in FY22, temporarily increasing our receivables balance at the end of the period. Our debtor days improved year-on-year to 21 days (FY21: 24 days);
- Inventory increasing by US\$206 million, mostly due to higher raw material input prices; and
- Provisions reducing by US\$82 million from a weaker Australian dollar and South African rand,

which was offset by Trade and other payables increasing by US\$160 million, due to the timing of raw material purchases and the impact of higher price-linked royalties.

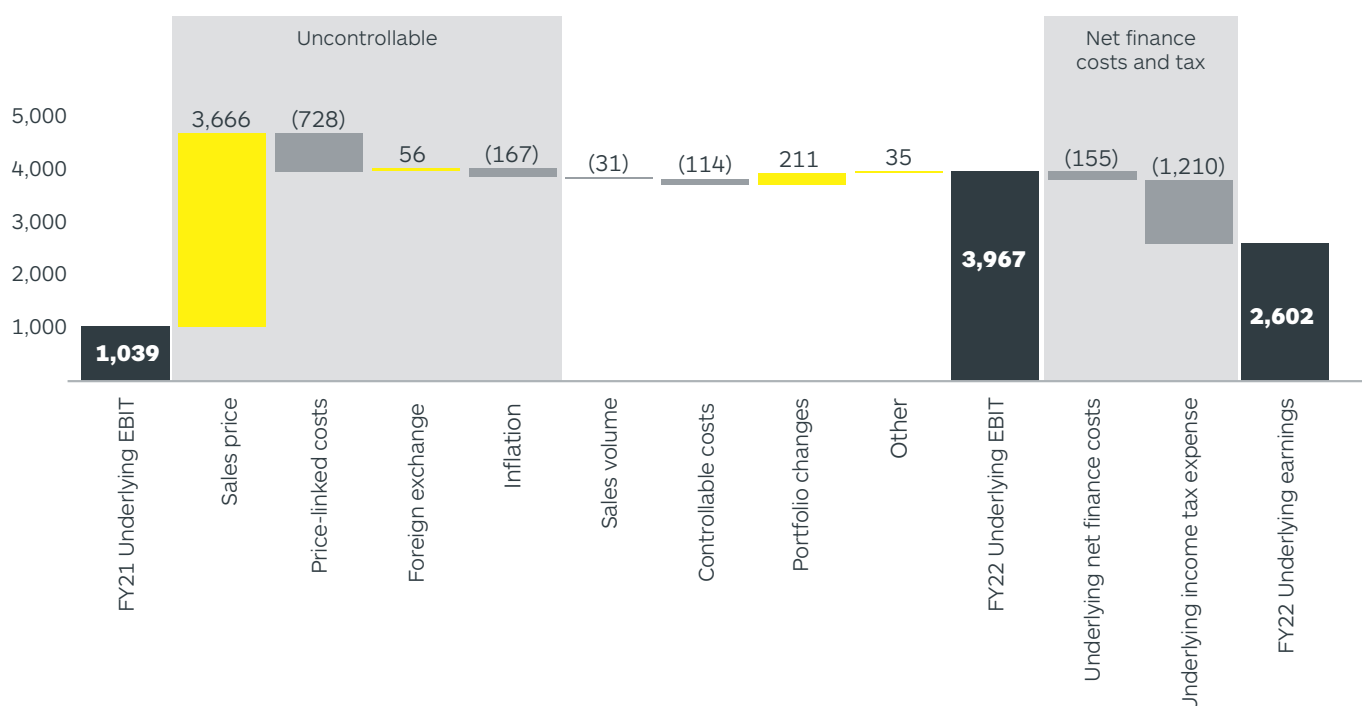
Working capital movement reconciliation

US\$M	FY22	FY21
Trade and other receivables	(300)	(156)
Inventories	(206)	(142)
Trade and other payables	160	264
Provisions and other liabilities	(82)	95
Working capital movement	(428)	61

Earnings analysis

The following key factors influenced Underlying EBIT in FY22, relative to FY21.

Reconciliation of movements in Underlying EBIT (US\$M)⁽¹⁾⁽²⁾⁽³⁾



(1) Sales price variance reflects the revenue impact of changes in commodity prices, based on the FY22's sales volume. Price-linked costs variance reflects the change in royalties together with the change in input costs driven by changes in commodity prices or market traded consumables. Foreign exchange reflects the impact of exchange rate movements on local currency denominated costs and sales. Sales volume variance reflects the revenue impact of sales volume changes, based on the comparative period's sales prices. Controllable costs variance represents the impact from changes in the Group's controllable local currency cost base, including the variable cost impact of production volume changes on expenditure, and period-on-period movements in inventories. The controllable cost variance excludes earnings adjustments including significant items.

(2) Underlying net finance costs and Underlying income tax expense are actual FY22 results, not year-on-year variances.

(3) South32's ownership shares of operations are presented as follows: Worsley Alumina (86 per cent share), Brazil Alumina (36 per cent share), Brazil Aluminium (40 per cent share), Hillside Aluminium (100 per cent), Mozal Aluminium (63.7 per cent share, noting that the FY22 Income statement reflects only one month of our increased ownership at 63.7 per cent following the completion of the acquisition for an additional 16.6 per cent shareholding on 31 May 2022), Sierra Gorda (45 per cent share), Cannington (100 per cent), Hermosa (100 per cent), Cerro Matoso (99.9 per cent share), Illawarra Metallurgical Coal (100 per cent), Australia Manganese (60 per cent share), South Africa Manganese ore (54.6 per cent share) and South Africa Manganese alloy (60 per cent share).

Earnings analysis	US\$M	Commentary
FY21 Underlying EBIT	1,039	
Change in sales price	3,666	Higher average realised prices for our commodities, including: Metallurgical coal (+US\$1,545 million) Aluminium (+US\$1,027 million) Alumina (+US\$386 million) Nickel (+US\$313 million) Manganese ore (+US\$279 million) Energy coal (+US\$88 million) Zinc (+US\$59 million) Lead (+US\$23 million) Partially offset by a lower average realised price for silver (-US\$54 million)
Net impact of price-linked costs	(728)	Higher freight and distribution costs (-US\$155 million) also partially reflected in Underlying revenue Higher price-linked royalties (-US\$148 million) Higher aluminium smelter raw material costs (-US\$143 million), including pitch and coke Higher caustic soda prices at Worsley Alumina (-US\$113 million) and Brazil Alumina (-US\$19 million) Higher coal, fuel oil and diesel prices (-US\$76 million), mostly at Brazil Alumina and Worsley Alumina Higher electricity prices (-US\$21 million) at Cerro Matoso and Illawarra Metallurgical Coal
Change in exchange rates	56	Weaker Australian dollar (+US\$56 million), weaker Colombian peso (+US\$18 million) and stronger South African rand (-US\$11 million)
Change in inflation	(167)	Inflation-linked indexation of our aluminium smelter electricity prices (-US\$40 million) General inflation across Australia, southern Africa and South America (-US\$127 million)
Change in sales volume	(31)	Lower volumes at: Illawarra Metallurgical Coal (-US\$55 million), Cannington (-US\$49 million), Australia Manganese (-US\$28 million), Brazil Alumina (-US\$27 million) and Worsley Alumina (-US\$22 million) Partially offset by higher volumes at: Cerro Matoso (+US\$122 million), South Africa Manganese (+US\$18 million) and Hillside Aluminium (+US\$13 million)
Controllable costs	(114)	Higher contractor and maintenance costs (-US\$74 million), including -US\$39 million at Illawarra Metallurgical Coal to support the additional longwall changeouts and maintenance activity Higher port and demurrage costs (-US\$19 million) due to third party logistics constraints Higher consumables costs (-US\$14 million) Partially offset by lower labour costs (+US\$17 million), with headcount efficiencies at some operations
Portfolio changes	211	Improved profitability, following the disposal of lower returning businesses South Africa Energy Coal and TEMCO, the acquisitions of our Sierra Gorda interest and additional shareholding in Mozal Aluminium, partially offset by smelter restart costs at Brazil Aluminium
Other	35	Lower depreciation and amortisation at Illawarra Metallurgical Coal and the recognition of historical tax credits at Brazil Alumina
FY22 Underlying EBIT	3,967	

Further analysis of operations performance is outlined on pages 46 to 56.

Financial and operational performance summary continued

Balance sheet and capital management

The Group's net cash balance increased by US\$132 million in FY22 to US\$538 million as we generated record free cash flow from operations of US\$2,240 million, supporting our investment in acquisitions (US\$1,534 million) that have increased our portfolio's exposure to metals critical for a low-carbon future. We also returned US\$788 million to shareholders in FY22 by way of ordinary dividends (US\$567 million), special dividends (US\$93 million) and our on-market share buy-back (US\$128 million, 46 million shares across FY22).

Consistent with our commitment to maintain an investment grade credit rating, during the year both S&P Global Ratings and Moody's reaffirmed their respective BBB+ and Baa1 credit ratings for the Group, and assigned the same ratings to the Notes.

Our capital management framework remains unchanged, and is designed to promote competition for capital through investment in high returning options or to protect portfolio value, as well as to reward shareholders as our financial performance improves.

Demonstrating this, the Board has resolved to pay a fully-franked ordinary dividend of US 14.0 cents per share (US\$648 million) in respect of H2 FY22 in line with our dividend policy to return a minimum 40 per cent of Underlying earnings every six months.

Having established a strong track record of returning excess cash to shareholders, and reflecting our strong financial position and our confidence in the outlook for the business, the Board has also resolved to pay a fully-franked special dividend of US 3.0 cents per share (US\$139 million) and has further expanded our capital management program by US\$156 million to US\$2.3 billion, leaving US\$250 million to be returned by 1 September 2023.

Net debt and sources of liquidity

Our policies on debt and treasury management are as follows:

- Commitment to maintain an investment grade credit rating;
- Diversification of funding sources; and
- Generally maintain borrowings and excess cash in US dollars.

Gearing and net cash

The table below presents net cash and net assets of the Group, based on the balance sheet as at 30 June 2022:

US\$M	FY22	FY21
Cash and cash equivalents	2,365	1,613
Current external debt	(402)	(408)
Non-current external debt	(1,425)	(799)
Net cash	538	406
Net assets	10,779	8,954

As at 30 June 2022, the Group's balance sheet was modestly geared with a leverage ratio of 0.2.

Funding sources

In addition to cash flow from operations as a primary source of funding, the Group executed our inaugural US dollar bond during the period, issuing US\$700 million in Notes to support the funding of our Sierra Gorda acquisition. The Notes are due in 2032 and will pay interest at a rate of 4.35 per cent per annum. We also retain access to significant liquidity, having successfully executed the refinancing of our undrawn, at the time of writing, committed US\$1.4 billion revolving credit facility during the year as a Sustainability Linked Loan. This facility is a standby arrangement to the Group's US dollar commercial paper program and is not subject to financial covenants at the Group's current credit rating. Certain financing facilities in relation to specific operations are the subject of financial covenants that vary from facility to facility; however, these are considered normal for such facilities.

As at 30 June 2022, the Group's cash and cash equivalents on hand were US\$2.4 billion. Details of our major standby arrangement are as follows:

US\$M	Available FY22	Used FY22
Revolving credit facility ⁽¹⁾	1,400	-

(1) The Group has an undrawn multicurrency revolving syndicated credit facility which is a standby arrangement to the US commercial paper program. This facility was refinanced in December 2021 for a five year term to 2026 with options to extend for up to a further two years by mutual agreement.

Additional information regarding the maturity profile of the Group's debt obligations and details of our major standby agreement is included in note 19 to the financial statements on pages 140 to 150.

Operations analysis

A summary of the underlying performance of the Group's operations is presented below and more detailed analysis is presented on pages 46 to 56.

Operations table (South32 share)⁽¹⁾

US\$M	Underlying Revenue		Underlying EBIT	
	FY22	FY21	FY22	FY21
Worsley Alumina	1,625	1,173	386	143
Brazil Alumina	524	400	89	66
Brazil Aluminium	–	–	(44)	(3)
Hillside Aluminium	2,254	1,511	666	293
Mozal Aluminium	924	578	271	98
Sierra Gorda	241	–	75	–
Cannington	736	757	315	350
Hermosa	–	–	(14)	(8)
Cerro Matoso	929	493	463	122
Illawarra Metallurgical Coal	2,338	758	1,388	(103)
Australia Manganese	848	730	402	304
South Africa Manganese	419	337	58	48
Third party products and services ⁽²⁾	600	298	20	10
Inter-segment / Group and unallocated	(808)	(573)	(108)	(131)
South32 Group (excluding South Africa Energy Coal)	10,630	6,462	3,967	1,189
South Africa Energy Coal	–	861	–	(150)
South32 Group	10,630	7,323	3,967	1,039

(1) South32's ownership share of operations is as per footnote (3) on page 42.

(2) FY22 Third party products and services sold comprises US\$110 million for aluminium, US\$25 million for alumina, US\$115 million for coal, US\$145 million for freight services, US\$165 million for raw materials and US\$40 million for manganese. Underlying EBIT on third party products and services comprises US\$8 million for aluminium, US\$8 million for alumina, US\$7 million for coal, (US\$3 million) for freight services, nil for raw materials and nil for manganese. FY21 Third party products and services sold comprises US\$43 million for aluminium, US\$10 million for alumina, US\$23 million for coal, US\$95 million for freight services, US\$92 million for raw materials and US\$35 million for manganese. Underlying EBIT on third party products and services comprises US\$8 million for aluminium, nil for alumina, US\$1 million for coal, nil for freight services, US\$1 million for raw materials and nil for manganese.

WORSLEY ALUMINA

Location: **Western Australia, Australia**

South32 share: **86 per cent**



South32 holds an 86 per cent interest in Worsley Alumina, while Japan Alumina Associates (Australia) Pty Ltd owns 10 per cent and Sojitz Alumina Pty Ltd owns four per cent.

Bauxite is mined near the town of Boddington, 130 kilometres south-east of Perth. It is transported by overland conveyor to the alumina refinery near Collie and turned into alumina powder, before being transported by rail to the Bunbury port. It is then shipped to smelters around the world, including our Hillside Aluminium and Mozal Aluminium smelters in southern Africa.

South32 share	FY22	FY21
Alumina production (kt)	3,991	3,963
Alumina sales (kt)	3,974	4,004
Realised sales price (US\$/t)	409	293
Operating unit cost (US\$/t)	265	214

South32 share (US\$M)	FY22	FY21
Underlying revenue	1,625	1,173
Underlying EBITDA	571	318
Underlying EBIT	386	143
Net operating assets	2,571	2,667
Capital expenditure	55	55
<i>Safe and reliable</i>	47	51
<i>Improvement and life extension</i>	8	4
Community investment	1.6	1.1

Safety

Total Recordable Injury Frequency (TRIF) was 6.5 for Worsley Alumina in FY22, a four per cent decrease year-on-year.

Volumes

Worsley Alumina saleable production increased by one per cent (or 28kt), to a record of 3,991kt in FY22, as the refinery delivered above its nameplate capacity (4.6Mtpa, 100 per cent basis), realising the benefit of embedded improvements.

Operating costs

Operating unit costs increased by 24 per cent (or US\$51/t) in FY22, to US\$265/t, as the benefit of record volumes was more than offset by a significant rise in caustic soda prices (FY22: US\$581/t, FY21: US\$302/t) that accounted for more than 60 per cent of the increase, and elevated global freight rates.

Financial performance

Underlying EBIT increased by 170 per cent (or US\$243 million) in FY22, to US\$386 million, as higher average realised alumina prices (+US\$461 million) more than offset higher caustic soda prices (-US\$113 million), price-linked freight rates (-US\$47 million) and energy costs (-US\$18 million).

Capital expenditure

Capital expenditure was unchanged at US\$55 million in FY22 as we continued to invest in additional bauxite residue disposal capacity and progressed our work to access new bauxite mining areas.

Community investment

We invested US\$1.6 million in communities around Worsley Alumina in FY22, with a focus on environmental protection and restoration, economic diversification and supporting education and cultural programs for Aboriginal and Torres Strait Islander Peoples.

BRAZIL ALUMINA



Location: **Pará and Maranhão, Brazil**

South32 investment: **Bauxite - 33 per cent**

South32 share: **Alumina - 36 per cent**

South32 holds a 33 per cent interest in the non-operated Mineração Rio do Norte (MRN) bauxite mine, following the acquisition of an additional 18.2 per cent interest in April 2022. Vale holds 40 per cent, Rio Tinto Alcan holds 12 per cent, Companhia Brasileira de Alumínio S.A. holds 10 per cent and Hydro holds five per cent.

The MRN mine is an open-cut strip mining operation. Mined ore is hauled to primary crushers and then transported by conveyor belt to the beneficiation plant. The bauxite produced from the MRN mine is sold to its shareholders. Together with our partners at MRN we continue to progress a pre-feasibility study for a life extension project. Our share of bauxite produced from the MRN mine is supplied to the Alumar alumina refinery.

We also hold a 36 per cent share of the non-operated Alumar alumina refinery. Alcoa holds 54 per cent and Rio Tinto Alcan holds 10 per cent.

The alumina produced from the refinery is exported through the Alumar port and supplied to the co-located Alumar aluminium smelter.

South32 share	FY22 ⁽¹⁾	FY21
Alumina production (kt)	1,297	1,398
Alumina sales (kt)	1,299	1,391
Realised sales price (US\$/t)	403	288
Operating unit cost (US\$/t)	288	203

South32 share (US\$M)	FY22 ⁽¹⁾	FY21
Underlying revenue	524	400
Underlying EBITDA	150	117
Underlying EBIT	89	66
Net operating assets	696	570
Capital expenditure	51	25
<i>Safe and reliable</i>	51	25

Volumes

Brazil Alumina saleable production decreased by seven per cent (or 101kt) to 1,297kt in FY22 as the refinery returned to nameplate capacity (3.86Mtpa, 100 per cent basis) from October 2021, following an incident in July 2021 that damaged one of the two bauxite ship unloaders at the operation.

Operating costs

Operating unit costs increased by 42 per cent to US\$288/t in FY22 with lower volumes and additional costs to recover from the bauxite ship unloader outage adding to raw material and energy cost inflation in H2 FY22.

Financial performance

Underlying EBIT increased by 35 per cent (or US\$23 million) in FY22, to US\$89 million, as higher average realised alumina prices (+US\$151 million) more than offset higher raw material and energy prices (-US\$76 million), lower sales volumes (-US\$27 million) and increased maintenance costs (-US\$7 million) due to the bauxite ship unloader incident.

Capital expenditure

Capital expenditure increased by US\$26 million to US\$51 million in FY22 as we stepped-up our rate of investment in bauxite residue disposal capacity.

(1) The increase in ownership in MRN has triggered a change in accounting treatment with the investment accounted for using the equity method (formerly classified as an investment in an equity instrument designated as fair value through other comprehensive income).

BRAZIL ALUMINIUM

Location: **Maranhão, Brazil**

South32 share: **40 per cent**



South32 holds a 40 per cent share in the non-operated Alumar aluminium smelter, which was restarted during FY22 after being on care and maintenance since 2015. Alcoa holds a 60 per cent share.

Following the restart, first production was achieved in the June 2022 quarter, with full capacity from the smelter's three potlines expected to be achieved in FY23. It has a solid metal production capacity of 447kt per year (on a 100 per cent basis) and produces standard aluminium ingots for the domestic and export markets.

Our share of Brazil Aluminium is powered by 100 per cent cost efficient renewable power.

South32 share	FY22	FY21
Aluminium production (kt)	0.3	–
Aluminium sales (kt)	–	–
Realised sales price (US\$/t)	–	–
Operating unit cost (US\$/t)	–	–
South32 share (US\$M)	FY22	FY21
Underlying revenue	–	–
Underlying EBITDA	(43)	(3)
Underlying EBIT	(44)	(3)
Net operating assets	46	1
Capital expenditure	1	–
<i>Safe and reliable</i>	1	–

Volumes

Brazil Aluminium saleable production was 0.3kt in FY22 with first production achieved in Q4 FY22 following the restart of the smelter.

Financial performance

Underlying EBIT in FY22 was a loss of US\$44 million as costs incurred to support the smelter's restart were expensed. No revenue was recognised in FY22 as we built inventory in line with our restart plan.

Our alumina supply is sourced from the co-located Brazil Alumina refinery with prices linked to the Platts index on a month minus one (M-1) basis.

Capital expenditure

Safe and reliable capital expenditure was US\$1 million in FY22.

HILLSIDE ALUMINIUM

Location: **KwaZulu-Natal, South Africa**

South32 share: **100 per cent**



The Hillside Aluminium smelter is located in Richards Bay in the South African province of KwaZulu-Natal and is 100 per cent owned and operated by South32 with a solid metal production capacity of 720kt per year.

Hillside Aluminium is the largest aluminium smelter in the southern hemisphere. The smelter produces high-quality, primary aluminium for the domestic and export markets.

To support the development of the downstream aluminium industry in South Africa a portion of liquid metal is supplied to Hulamin and other local companies that sell products in the domestic and export markets.

South32 share	FY22	FY21
Aluminium production (kt)	714	717
Aluminium sales (kt)	713	707
Realised sales price (US\$/t)	3,161	2,137
Operating unit cost (US\$/t)	2,137	1,631

South32 share (US\$M)	FY22	FY21
Underlying revenue	2,254	1,511
Underlying EBITDA	730	358
Underlying EBIT	666	293
Net operating assets	927	733
Capital expenditure	24	17
<i>Safe and reliable</i>	20	17
<i>Improvement and life extension</i>	4	–
Community investment	13.1	3.0

Safety

TRIF was 1.3 for Hillside Aluminium in FY22, a 160 per cent increase year-on-year.

Volumes

Hillside Aluminium saleable production decreased by 3kt to 714kt in FY22 as the smelter continued to test its maximum technical capacity, despite the impact of increased load-shedding.

Operating costs

Operating unit costs increased by 31 per cent in FY22, to US\$2,137/t, as a significant rise in raw material input costs created inflationary pressure across the aluminium industry. Alumina, coke, pitch and electricity accounted for 77 per cent of the smelter's cost base in FY22 (FY21: 78 per cent). The smelter sources its alumina from our Worsley Alumina refinery with prices linked to the PAX on a M-1 basis.

Financial performance

Underlying EBIT increased by 127 per cent (or US\$373 million) in FY22, to US\$666 million, as stronger aluminium prices (+US\$731 million) more than offset higher raw material input prices (-US\$234 million), and power costs (-US\$32 million). While additional shipping costs (-US\$25 million) from higher freight rates and demurrage costs due to poor third party port performance impacted earnings, the extent of those impacts was mitigated as we established alternative discharge and shipping options.

162 pots were relined at a cost of US\$274,000 per pot in FY22 (FY21: 120 pots at US\$244,000 per pot). Our first pots utilising the AP3XLE energy efficiency technology were relined during Q4 FY22.

Capital expenditure

Capital expenditure increased by US\$7 million to US\$24 million in FY22 as we commenced our roll-out of the AP3XLE technology. The AP3XLE energy efficiency project is expected to reduce the smelter's energy consumption and in turn lower greenhouse gas emissions by approximately 150,000 to 200,000 tonnes per annum once fully deployed.

Community investment

We invested US\$13.1 million in communities around Hillside Aluminium in FY22, with a focus on local skills and economic development, education and strengthening healthcare services.

MOZAL ALUMINIUM

Location: **Maputo, Mozambique**

South32 share: **63.7 per cent**



South32 holds a 63.7 per cent share of Mozal Aluminium, following the acquisition of an additional 16.6 per cent share in May 2022. The Industrial Development Corporation of South Africa Limited holds 24 per cent, Mitsubishi Corporation (through MCA Metals Holding GmbH) holds 8.4 per cent and the Government of the Republic of Mozambique holds 3.9 per cent (through preference shares).

Mozal Aluminium is located 20 kilometres west of Mozambique's capital city Maputo and has a solid metal production capacity of 580kt per year (on a 100 per cent basis).

Mozal Aluminium is the only aluminium smelter in Mozambique and the second largest aluminium smelter in Africa (behind our Hillside Aluminium smelter in South Africa). It produces standard aluminium ingots.

To support the development of the downstream aluminium industry in Mozambique a portion of liquid metal is supplied to Midal Cables, a local company that sells products in the domestic and export markets.

South32 share	FY22 ⁽¹⁾	FY21
Aluminium production (kt)	278	265
Aluminium sales (kt)	276	262
Realised sales price (US\$/t)	3,348	2,206
Operating unit cost (US\$/t)	2,243	1,702

South32 share (US\$M)	FY22 ⁽¹⁾	FY21
Underlying revenue	924	578
Underlying EBITDA	305	132
Underlying EBIT	271	98
Net operating assets	615	456
Capital expenditure	11	11
<i>Safe and reliable</i>	10	10
<i>Improvement and life extension</i>	1	1
Community investment	1.6	1.8

Safety

TRIF was 0.9 for Mozal Aluminium in FY22, an 80 per cent increase year-on-year.

Volumes

Mozal Aluminium saleable production increased by five per cent (or 13kt) to 278kt in FY22 with the smelter benefitting from our roll-out of the AP3XLE energy efficiency technology, which partially offset the impact of increased load-shedding. Our equity share of production reflects the completion of our acquisition of an additional 16.6 per cent shareholding in the smelter on 31 May 2022.

Operating costs

Operating unit costs increased by 32 per cent, to US\$2,243/t in FY22, as a significant rise in raw material input costs created inflationary pressure across the aluminium industry. Alumina, coke, pitch and electricity accounted for 74 per cent of the smelter's cost base in FY22 (FY21: 73 per cent).

The smelter sources its alumina from our Worsley Alumina refinery with approximately 50 per cent priced as a percentage of the LME aluminium index under a legacy contract and the remainder linked to the PAX on a M-1 basis, with caps and floors embedded within specific contracts that reset each calendar year.

Financial performance

Underlying EBIT increased by 177 per cent (or US\$173 million) in FY22, to US\$271 million, as stronger realised aluminium prices (+US\$297 million) and the benefit of our increased ownership more than offset higher raw material input prices (-US\$109 million) and freight related costs (-US\$11 million). 127 pots were relined in FY22 at a cost of US\$266,000 per pot (FY21: 134 pots at US\$252,000 per pot).

Capital expenditure

Capital expenditure was unchanged at US\$11 million in FY22 as the smelter continued to roll-out the AP3XLE energy efficiency technology in its pot relining program.

Community investment

We invested US\$1.6 million in communities around Mozal Aluminium in FY22, with a focus on education and skills development, health and wellbeing and development of sustainable agriculture practice.

(1) Our underlying results reflect the completion of our acquisition of an additional 16.6 per cent shareholding in the smelter on 31 May 2022, taking our ownership to 63.7 per cent. Prior period numbers have not been restated for this change in ownership (presented on a 47.1 per cent basis).

SIERRA GORDA

Location: **Antofagasta, Chile**

South32 share: **45 per cent**



In February 2022 we completed the acquisition of a 45 per cent interest in the Sierra Gorda copper mine in Chile, which is held via the Sierra Gorda S.C.M. incorporated Joint Venture alongside 55 per cent joint venture partner KGHM Polska Miedz, a global miner listed in Poland.

The Joint Venture Agreement provides South32 with joint control and governance rights alongside KGHM Polska Miedz. This joint control is exercised through the Joint Venture Owners Council, which is responsible for the strategic direction and oversight of Sierra Gorda S.C.M. An independent management team operates Sierra Gorda S.C.M. and reports to the Joint Venture Owners Council.

Sierra Gorda is a large scale, open-pit mine in the prolific Antofagasta copper mining region and produces copper, molybdenum, gold and silver. Ore processing includes crushing, grinding, flotation, thickening and filtering to produce concentrates. The mine is serviced by established infrastructure, including renewable power and a seawater pipeline, with freight rail and a national highway connecting the operation to the ports of Antofagasta and Angamos.

South32 share	FY22 ⁽¹⁾	FY21
Ore mined (Mt)	13.7	–
Ore processed (Mt)	7.5	–
Ore grade processed (% Cu)	0.42	–
Payable copper equivalent production (kt) ⁽²⁾	29.5	–
Payable copper production (kt)	25.3	–
Payable molybdenum production (kt)	0.4	–
Payable gold production (koz)	9.6	–
Payable silver production (koz)	253	–
Payable copper sales (kt)	27.7	–
Payable molybdenum sales (kt)	0.6	–
Payable gold sales (koz)	9.9	–
Payable silver sales (koz)	282	–
Realised copper sales price (US\$/lb)	3.50	–
Realised molybdenum sales price (US\$/lb)	18.48	–
Realised gold sales price (US\$/oz)	1,934	–
Realised silver sales price (US\$/oz)	23.5	–
Operating unit cost (US\$/t ore processed) ⁽³⁾	14.6	–
Operating unit cost (US\$/lb CuEq) ⁽⁴⁾	1.61	–

South32 share (US\$M)	FY22 ⁽¹⁾	FY21
Underlying revenue	241	–
Underlying EBITDA	133	–
Underlying EBIT	75	–
Net operating assets	1,402	–
Capital expenditure	81	–
Safe and reliable	36	–
Improvement and life extension	45	–
Exploration expenditure	2	–
Exploration expensed	1	–

Volumes

Our share of copper equivalent production from the date of acquisition to 30 June 2022 was 29.5kt (25.3kt of copper, 0.4kt of molybdenum, 9.6koz of gold and 253koz of silver).

Operating costs

Operating unit costs to 30 June 2022 were US\$14.6/t ore processed or US\$1.61/lb CuEq.

Financial performance

Underlying EBIT was US\$75 million for the period from 22 February 2022 to 30 June 2022 as we recorded US\$241 million of revenue from the sale of 27.7kt of copper, 0.6kt of molybdenum, 9.9koz of gold and 282koz of silver.

Capital expenditure

Our share of safe and reliable capital expenditure for the period from acquisition to 30 June 2022 was US\$36 million. We also directed US\$10 million to improvement and life extension capital expenditure for the plant de-bottlenecking project in FY22. Separately, FY22 improvement and life extension capital included US\$35 million paid for expenditure incurred for the brownfield oxide project prior to our acquisition.

(1) Realised sales prices and Operating unit costs presented in the table reflect the period 1 March 2022 to 30 June 2022. Whereas production and sales numbers, and all Income Statement items reflect the period from first ownership (22 February 2022).

(2) Payable copper equivalent production (kt) was calculated by aggregating revenues from copper, molybdenum, gold and silver, and dividing the total Revenue by the price of copper. FY21 index prices for copper (US\$4.23/lb), molybdenum (US\$15.7/lb), gold (US\$1,796/oz) and silver (US\$25.2/oz) have been used for FY22.

(3) Sierra Gorda Operating unit cost is Underlying revenue less Underlying EBITDA divided by ore processed. Periodic movements in finished product inventory may impact operating unit costs as related marketing costs may change.

(4) US dollar per pound of copper equivalent production. FY22 realised prices for copper (US\$3.50/lb), molybdenum (US\$18.48/lb), gold (US\$1,934/oz) and silver (US\$23.5/oz) have been used for FY22 Operating unit cost.

CANNINGTON

Location: **Queensland, Australia**

South32 share: **100 per cent**



Located in north-west Queensland, Cannington is 100 per cent owned by South32 and is one of the world's largest producers of silver and lead.

Cannington consists of an underground hard rock mine and surface processing facility, a road-to-rail transfer facility and a concentrate handling and ship loading facility at the Port of Townsville. In Q4 FY22 we transitioned to 100 per cent truck haulage to bring product to the surface.

Silver, lead and zinc are extracted from the ore using grinding, sequential flotation and leaching techniques that produce high-grade, marketable lead and zinc concentrates with a high silver content.

South32 share	FY22	FY21
Ore mined (kwmt)	2,753	2,819
Ore processed (kdmt)	2,618	2,746
Ore grade processed (g/t, Ag)	180	185
Ore grade processed (% , Pb)	5.4	5.7
Ore grade processed (% , Zn)	3.5	3.5
Payable zinc equivalent production (kt) ⁽¹⁾	299.3	319.0
Payable silver production (koz)	12,946	13,655
Payable lead production (kt)	120.6	131.8
Payable zinc production (kt)	64.5	67.7
Payable silver sales (koz)	12,898	13,736
Payable lead sales (kt)	122.2	131.7
Payable zinc sales (kt)	66.2	69.0
Realised silver sales price (US\$/oz)	21.0	25.4
Realised lead sales price (US\$/t)	2,046	1,862
Realised zinc sales price (US\$/t)	3,248	2,357
Operating unit cost (US\$/t ore processed) ⁽²⁾	133	124
South32 share (US\$M)	FY22	FY21
Underlying revenue	736	757
Underlying EBITDA	388	416
Underlying EBIT	315	350
Net operating assets	141	195
Capital expenditure	45	43
Safe and reliable	43	41
Improvement and life extension	2	2
Exploration expenditure	3	2
Exploration expensed	2	2
Community investment	0.3	0.4

Safety

TRIF was 9.1 for Cannington in FY22, a 26 per cent increase year-on-year.

Volumes

Cannington payable zinc equivalent production decreased by six per cent (or 19.7kt), to 299.3kt in FY22, as we completed planned maintenance and built run of mine stocks during Q4 FY22 to support the operation's transition to 100 per cent truck haulage.

Operating costs

Operating unit costs increased by seven per cent (or US\$9/t) in FY22, to US\$133/t, as we lowered volumes to complete scheduled maintenance and work to support the transition to 100 per cent truck haulage.

Financial performance

Underlying EBIT decreased by 10 per cent (or US\$35 million) in FY22, to US\$315 million, as our reduced sales volumes (-US\$49 million) and higher freight rates (-US\$6 million) more than offset higher prices (+US\$28 million) and initiatives to reduce our spend on labour and consultant activity (+US\$9 million).

Capital expenditure

Capital expenditure increased by US\$2 million to US\$45 million in FY22 as we invested to support the operation's transition to 100 per cent truck haulage.

Community investment

We invested US\$0.3 million in communities around Cannington in FY22, with a focus on education, local economic participation, natural resource resilience and community wellbeing.

(1) Payable zinc equivalent (kt) was calculated by aggregating revenues from payable silver, lead and zinc, and dividing the total Revenue by the price of zinc. FY21 realised prices for zinc (US\$2,357/t), lead (US\$1,862/t) and silver (US\$25.4/oz) have been used for FY21 and FY22

(2) Cannington Operating unit cost is Underlying revenue less Underlying EBITDA divided by ore processed. Periodic movements in finished product inventory may impact operating unit costs as related marketing costs may change.

CERRO MATOSO

Location: **Córdoba, Colombia**

South32 share: **99.9 per cent**



Cerro Matoso is an integrated nickel laterite mine and smelter located in the Córdoba area of northern Colombia, consisting of a truck and shovel open-cut mine and a processing plant. South32 owns 99.9 per cent of Cerro Matoso. Current and former employees own 0.02 per cent, with the balance of shares held in a reserve account following a buy-back.

Cerro Matoso is a major producer of nickel contained in ferronickel which is used to make stainless steel. Ore mined is blended with ore from stockpiles, which is then dried in rotary kilns and smelted in two electric arc furnaces where ferronickel is produced.

The Queresas and Porvenir (Q&P) project delivered first ore in April 2021 contributing higher feed grades, and the Ore Sorting and Mechanical Ore Concentration (OSMOC) project, which is currently in its final construction phase, is expected to increase Cerro Matoso's processing capacity and maintain payable nickel production by offsetting natural grade decline from FY23.

South32 share	FY22	FY21
Ore mined (kwmt)	4,867	3,238
Ore processed (kdmt)	2,703	2,385
Ore grade processed (% Ni)	1.73	1.63
Payable nickel production (kt)	41.7	34.1
Payable nickel sales (kt)	41.8	33.5
Realised sales price (US\$/lb)	10.08	6.68
Operating unit cost (US\$/lb) ⁽¹⁾	4.34	4.01
Operating unit cost (US\$/t) ⁽²⁾	148	124

South32 share (US\$M)	FY22	FY21
Underlying revenue	929	493
Underlying EBITDA	529	197
Underlying EBIT	463	122
Net operating assets	349	405
Capital expenditure	37	45
<i>Safe and reliable</i>	18	30
<i>Improvement and life extension</i>	19	15
Community investment	3.9	3.3

Safety

TRIF was 2.8 for Cerro Matoso in FY22, a 51 per cent decrease year-on-year.

Volumes

Cerro Matoso payable nickel production increased by 22 per cent (or 7.6kt) to 41.7kt in FY22 as throughput recovered following completion of a major furnace refurbishment in FY21 and we added higher-grade ore from the Q&P pit, increasing average nickel grades by six per cent (FY22: 1.73 per cent; FY21: 1.63 per cent).

Operating costs

Operating unit costs increased by eight per cent in FY22, to US\$4.34/lb, as a significant increase in price-linked royalties and energy prices, along with costs to support processing of additional higher-grade Q&P volumes, were partially offset by volume benefits and a weaker Colombian peso. The operation also recognised a one-off benefit related to the reversal of a royalty provision.

Financial performance

Underlying EBIT increased by 280 per cent (or US\$341 million) in FY22, to US\$463 million, as higher realised nickel prices (+US\$313 million) and sales volumes (+US\$122 million) more than offset higher price-linked royalties (-US\$31 million), energy costs (-US\$17 million) and additional expenditure on labour and contractors to support mining from the Q&P pit (-US\$7 million).

Capital expenditure

Safe and reliable capital expenditure decreased by US\$12 million, to US\$18 million in FY22, following the prior period's completion of the major furnace refurbishment. Improvement and life extension capital expenditure increased by US\$4 million, to US\$19 million in FY22, as we progressed the final construction phase of the OSMOC project.

We are working to extend the mining contract at Cerro Matoso by 15 years from 2029 to 2044 with the extension underpinned by the expanded processing capacity that is expected to be delivered by the OSMOC project.

Community investment

We invested US\$3.9 million in communities around Cerro Matoso in FY22, with a focus on water infrastructure, cultural programs, education and community housing.

(1) Operating unit cost is Revenue less Underlying EBITDA, excluding third party sales, divided by sales volumes.

(2) Cerro Matoso Operating unit cost per tonne is Revenue less Underlying EBITDA divided by ore processed. Periodic movements in finished product inventory may impact Operating unit costs as related marketing costs may change.

ILLAWARRA METALLURGICAL COAL

Location: **New South Wales, Australia**

South32 share: **100 per cent**



Located in the southern coalfields of New South Wales, Illawarra Metallurgical Coal is 100 per cent owned by South32 and operates two underground metallurgical coal mines, Appin mine and Dendrobium mine, and West Cliff and Dendrobium coal preparation plants. Illawarra Metallurgical Coal also manages the Port Kembla Coal Terminal on behalf of a consortium of partners.

Illawarra Metallurgical Coal produces premium-quality, hard coking coal for steelmaking, and energy coal. The operation supports the domestic steelmaking industry by supplying product to BlueScope Steel's Port Kembla Steelworks, the largest steel production facility in Australia.

South32 share	FY22	FY21
Metallurgical coal production (kt)	5,712	6,170
Energy coal production (kt)	797	1,475
Metallurgical coal sales (kt) ⁽¹⁾	5,823	6,074
Energy coal sales (kt) ⁽¹⁾	783	1,542
Realised metallurgical coal sales price (US\$/t)	381	115
Realised energy coal sales price (US\$/t)	156	40
Operating unit cost (US\$/t) ⁽²⁾	126	87

South32 share (US\$M)	FY22	FY21
Underlying revenue ⁽³⁾	2,338	758
Underlying EBITDA	1,507	94
Underlying EBIT	1,388	(103)
Net operating assets	786	612
Capital expenditure	189	188
Safe and reliable	177	151
Improvement and life extension	12	37
Exploration expenditure	11	14
Exploration expensed	9	5
Community investment	1.2	1.0

Safety

TRIF was 16.5 for Illawarra Metallurgical Coal in FY22, a 16 per cent decrease year-on-year.

Volumes

Illawarra Metallurgical Coal saleable production decreased by 15 per cent (or 1,136kt) to 6,509kt in FY22 as we completed three longwall moves during the year and ceased sales of low-margin coal wash material. The impact of adverse weather and COVID-19 related labour restrictions also impacted the operation's ability to maintain planned development rates during the period.

Operating costs

Operating unit costs increased by 45 per cent, to US\$126/t in FY22, with a significant increase in price-linked royalties, due to higher prices, accounting for 38 per cent of the change. Lower volumes and increased contractor and maintenance activities were the other main drivers.

Financial performance

Underlying EBIT increased by US\$1,491 million, to US\$1,388 million in FY22, with higher realised prices (+US\$1,635 million), partially offset by higher price-linked royalties (-US\$101 million), lower sales volumes (-US\$55 million), and increased contractor and maintenance activity (-US\$39 million) to support the additional longwall moves.

Depreciation decreased by US\$78 million, to US\$119 million in FY22, following a non-cash impairment of the operation's carrying value in FY21.

Capital expenditure

Safe and reliable capital expenditure increased by US\$26 million, to US\$177 million in FY22, as we invested in additional coal clearance and ventilation infrastructure to support the transition to a single longwall at Appin. Notwithstanding the increase, FY22 expenditure was US\$38 million below our original guidance as adverse weather and COVID-19 related labour restrictions impacted the ability of the operation to complete planned work.

Improvement and life extension capital expenditure decreased by US\$25 million to US\$12 million in FY22 as we scaled back activity on the Dendrobium Next Domain project. Subsequent to the end of the reporting period, we announced that we will not proceed with an investment in the Dendrobium Next Domain project following our consideration of recently completed study work and extensive analysis of alternatives considered for the complex⁽⁴⁾.

Community investment

We invested US\$1.2 million in communities around Illawarra Metallurgical Coal in FY22, with a focus on education, health, community support and services, and local economic development.

(1) Volumes and prices do not include any third party trading that may be undertaken independently of equity production.

(2) Operating unit cost is Revenue less Underlying EBITDA, excluding third party sales, divided by sales volumes.

(3) Illawarra Metallurgical Coal Revenue includes metallurgical coal and energy coal sales Revenue.

(4) Refer to market release dated 23 August 2022 at www.south32.net

AUSTRALIA MANGANESE

Location: **Northern Territory, Australia**

South32 share: **60 per cent**



Australia Manganese consists of Groote Eylandt Mining Company Pty Ltd (GEMCO) in the Northern Territory. South32 owns 60 per cent of GEMCO and Anglo American Plc holds the remaining 40 per cent.

GEMCO is an open-cut strip mining operation, producing high-grade manganese ore and is located in close proximity to Asian export markets. It is one of the largest manganese ore producers in the world.

The Tasmanian Electro Metallurgical Company (TEMCO) manganese alloy smelter was wholly owned by GEMCO until the completion of its divestment in FY21.

South32 share	FY22	FY21
Manganese ore production (kwmt)	3,363	3,529
Manganese alloy production (kt)	–	51
Manganese ore sales (kwmt)	3,372	3,621
External customers	3,372	3,506
TEMCO	–	115
Manganese alloy sales (kt)	–	59
Realised external manganese ore sales price (US\$/dmu, FOB) ⁽¹⁾⁽²⁾	5.29	4.13
Ore Operating unit cost (US\$/dmu) ⁽²⁾⁽³⁾	1.86	1.52

South32 share (US\$M)	FY22	FY21
Underlying revenue	848	730
Manganese ore	848	685
Manganese alloy	–	57
Intra-segment elimination	–	(12)
Underlying EBITDA	488	385
Manganese ore	488	389
Manganese alloy	–	(4)
Underlying EBIT	402	304
Manganese ore	402	308
Manganese alloy	–	(4)
Net operating assets	258	243
Manganese ore	258	243
Capital expenditure	62	55
Safe and reliable	56	53
Improvement and life extension	6	2
Exploration expenditure	1	2
Exploration expensed	–	1
Community investment	1.1	1.7

Safety

TRIF was 7.1 for GEMCO in FY22, a 13 per cent increase year-on-year.

Volumes

Australia Manganese saleable ore production decreased by five per cent (or 166kwmt), to 3,363kwmt in FY22, as weather-related disruptions and COVID-19 workplace restrictions prevented the re-build of stockpiles ahead of the wet season. This contributed to adverse ore handling characteristics that resulted in a lower yield at the primary concentrator.

Operating costs

Operating unit costs increased by 22 per cent, to US\$1.86/dmtu in FY22, due to the lower volumes together with higher diesel prices and consumable costs.

Financial performance

Manganese ore Underlying EBIT increased by 31 per cent (or US\$94 million), to US\$402 million in FY22, as higher realised prices (+US\$203 million) more than offset the impact of lower sales volumes (-US\$28 million), higher freight rates (-US\$35 million), diesel prices (-US\$13 million) and consumable costs (-US\$9 million).

Our FY22 realised price improved year-on-year as we benefitted from improved market conditions and achieved the high grade 44 per cent manganese lump ore index, despite our low-cost Premium Concentrate Ore (PC02) circuit operating above its design capacity, contributing 11 per cent of total production (FY21: 10 per cent).

Capital expenditure

Safe and reliable capital expenditure increased by US\$3 million, to US\$56 million in FY22, as we continued to invest in tailings storage capacity.

Improvement and life extension capital expenditure increased by US\$4 million, to US\$6 million in FY22 as we progressed the feasibility study for our Eastern Leases mine life extension project.

Community investment

We invested US\$1.1 million in communities around Australia Manganese in FY22, with a focus on education and leadership, economic development, and health and wellbeing programs for Aboriginal and Torres Strait Islander Peoples.

- (1) Realised ore prices are calculated as external sales Underlying revenue less freight and marketing costs, divided by external sales volume. Ore converted to sinter and alloy, and sold externally, is eliminated as an intracompany transaction.
- (2) Manganese Australia FY22 average manganese content of external ore sales was 44.2 per cent on a dry basis (FY21: 44.4 per cent). 96 per cent of FY22 external manganese ore sales (FY21: 97 per cent) were completed on a CIF basis. FY22 realised FOB ore prices and Operating unit costs have been adjusted for freight and marketing costs of US\$96 million (FY21: US\$63 million), consistent with our FOB cost guidance.
- (3) FOB ore operating unit cost is Underlying revenue less Underlying EBITDA, freight and marketing costs, divided by ore sales volume.

SOUTH AFRICA MANGANESE

Location: **Northern Cape and Gauteng, South Africa**

South32 share: **Ore - 44.4 per cent, Alloy - 60 per cent**



South Africa Manganese consists of two manganese mines and the Metalloys manganese alloy smelter which was placed on care and maintenance in FY20.

Hotazel Manganese Mines (HMM) is located in the Kalahari Basin and operates two manganese mines, the open-cut Mamatwan mine and the underground Wessels mine. South32 holds a 60 per cent interest in Samancor Holdings (Pty) Ltd (Samancor Holdings) and Anglo American Plc holds the remaining 40 per cent. Samancor Holdings indirectly owns 74 per cent of HMM, which gives South32 its ownership interest of 44.4 per cent. The remaining 26 per cent of HMM is owned by Broad-Based Black Economic Empowerment entities.

South32 holds an effective 60 per cent interest in Samancor Manganese (Pty) Ltd (Metalloys manganese alloy smelter). The site remains on care and maintenance as we assess future options for the smelter.

South32 share ⁽¹⁾	FY22	FY21
Manganese ore production (kwmt)	2,069	2,060
Manganese alloy production (kt)	–	–
Manganese ore sales (kwmt)	2,170	2,035
<i>External customers</i>	2,170	2,035
Manganese alloy sales (kt)	–	11
Realised external manganese ore sales price (US\$/dmtu, FOB) ⁽²⁾⁽³⁾	3.92	3.53
Ore Operating unit cost (US\$/dmtu) ⁽³⁾⁽⁴⁾	2.73	2.48

South32 share (US\$M) ⁽¹⁾	FY22	FY21
Underlying revenue	419	337
<i>Manganese ore</i>	419	330
<i>Manganese alloy</i>	–	7
Underlying EBITDA	78	64
<i>Manganese ore</i>	99	84
<i>Manganese alloy</i>	(21)	(20)
Underlying EBIT	58	48
<i>Manganese ore</i>	79	68
<i>Manganese alloy</i>	(21)	(20)
Net operating assets/(liabilities)	135	152
<i>Manganese ore</i>	211	212
<i>Manganese alloy</i>	(76)	(60)
Capital expenditure	19	15
<i>Safe and reliable</i>	14	15
<i>Improvement and life extension</i>	5	–
Exploration expenditure	1	1
Exploration expensed	1	1
Community investment	3.7	2.1

Safety

TRIF was 3.1 for HMM in FY22, a 72 per cent increase year-on-year.

Volumes

South Africa Manganese saleable ore production was largely unchanged at 2,069kwmt in FY22 as we increased volumes of premium material from our Mamatwan mine during the year, more than offsetting the impact of planned maintenance.

Operating costs

Operating unit costs increased by 10 per cent, to US\$2.73/dmtu in FY22, as the operation increased its use of higher cost trucking (FY22: 35 per cent, FY21: 31 per cent) to deliver additional volumes of premium product and maximise cash flow.

Financial performance

Manganese ore Underlying EBIT increased by 16 per cent (or US\$11 million), to US\$79 million in FY22, as higher realised prices (+US\$76 million) and sales volumes (+US\$13 million) more than offset increased freight costs (-US\$46 million) and a stock drawdown as we optimised our sales mix of premium material (-US\$15 million).

Our realised sales price in FY22 was a premium of approximately 18 per cent to the medium grade 37 per cent manganese lump ore index, as we maximised our revenue by optimising our sales mix with additional volumes of our premium products.

Manganese alloy Underlying EBIT was a loss of US\$21 million in FY22 recognising an adjustment to the closure and rehabilitation provision with the Metalloys smelter remaining on care and maintenance.

Capital expenditure

Safe and reliable capital expenditure decreased by US\$1 million, to US\$14 million in FY22. Improvement and life extension capital expenditure increased to US\$5 million in FY22, as we progressed work to open up new mining areas at Mamatwan.

Community investment

We invested US\$3.7 million in communities around South Africa Manganese in FY22, with a focus on education, health and local economic development.

- (1) South Africa Manganese ore has been reported as a 54.6 per cent interest (previously 60 per cent) reflecting our Metalloys manganese alloy smelter (60 per cent interest) having been placed on care and maintenance, and aligning with our interest in Hotazel Manganese Mines (HMM). South32 has a 44.4 per cent ownership interest in HMM. 26 per cent of HMM is owned by a B-BBEE consortium comprising Ntsimbintle Mining (nine per cent), NCAB Resources (seven per cent), Iziko Mining (five per cent) and HMM Education Trust (five per cent). The interests owned by NCAB Resources, Iziko Mining and HMM Education Trust were acquired using vendor finance with the loans repayable via distributions attributable to these parties, pro rata to their share in HMM. Until these loans are repaid, South32's interest in HMM is accounted at 54.6 per cent.
- (2) Volumes and prices do not include any third party trading that may be undertaken independently of equity production. Realised ore prices are calculated as external sales Underlying Revenue less freight and marketing costs, divided by external sales volume.
- (3) South Africa Manganese FY22 average manganese content of external ore sales was 39.7 per cent on a dry basis (FY21: 39.9 per cent). 75 per cent of FY22 external manganese ore sales (FY21: 76 per cent) were completed on a CIF basis. FY22 realised FOB ore prices and Operating unit costs have been adjusted for freight and marketing costs of US\$88 million (FY21: US\$50 million).
- (4) FOB ore operating unit cost is Underlying revenue less Underlying EBITDA, freight and marketing costs, divided by ore sales volume.

Third party product sales

The Group differentiates the sale of its production from the sale of third party products due to a significant difference in profit margin earned on these sales. The table below shows the breakdown between the Group's production and third party products:

US\$M	FY22	FY21
Group Production		
Underlying revenue	10,030	6,899
Related operating costs (net of other income)	(6,083)	(5,881)
Underlying EBIT	3,947	1,018
Margin on Group production	39.4%	14.8%
Third party products		
Underlying revenue	600	424
Related operating costs (net of other income) ⁽¹⁾	(580)	(403)
Third party Underlying EBIT	20	21
Margin on third party products	3.3%	5.0%

(1) Includes depreciation and amortisation.

The Group engages in third party trading for the following reasons:

- To ensure a consistent supply of materials to its customers;
- As a result of production variability and occasional shortfalls from the Group's operations; and
- To enhance value through product blending and supply chain optimisation.

Outlook

Information on likely developments in the Group's business strategies, prospects and operations for future financial years and the expected results that could result in unreasonable prejudice to the Group (for example, information that is commercially sensitive, confidential or could give a third party a commercial advantage) has not been included in this report. The categories of information omitted include forward-looking estimates and projections prepared for internal management purposes, information regarding the Group's operations and projects, which are developing and susceptible to change, and information relating to commercial contracts.

Production

The majority of our operations delivered to guidance in FY22, despite adverse impacts from weather and labour availability caused by the COVID-19 pandemic. While all guidance remains subject to further potential impacts from COVID-19, we expect Group copper equivalent production to increase by 14 per cent in FY23 as we benefit from our investments in efficiency and improvement projects and our acquisitions that will increase our production of metals critical to a low-carbon future.

Production guidance (South32's share)⁽¹⁾

	FY22	FY23e ⁽²⁾	FY24e ⁽²⁾	Key guidance assumptions
Worsley Alumina				
Alumina production (kt)	3,991	4,000	4,000	Expected to sustain above nameplate capacity in FY23 and FY24
Brazil Alumina (non-operated)				
Alumina production (kt)	1,297	1,395	1,400	Expected to increase by eight per cent in FY23 as the refinery returns to normalised production rates, before creeping 5kt in FY24
Brazil Aluminium (non-operated)				
Aluminium production (kt)	0.3	↓100	179	Lowered in FY23 due to the slower ramp-up to nameplate capacity of all three potlines (179ktpa, 40 per cent basis)
Hillside Aluminium				
Aluminium production (kt)	714	720	720	Expected to test its maximum technical capacity Guidance remains subject to load-shedding
Mozal Aluminium				
Aluminium production (kt)	278	370	370	Expected to benefit from AP3XLE energy efficiency project and our increased ownership interest Guidance remains subject to load-shedding

Financial and operational performance summary continued

Production guidance (South32's share)⁽¹⁾ continued

	FY22	FY23e ⁽²⁾	FY24e ⁽²⁾	Key guidance assumptions
Sierra Gorda (non-operated)				
Ore processed (Mt)	7.5	22.2	N/A	Throughput capacity expected to increase by six per cent to approximately 50Mtpa (100 per cent basis) by Q2 FY23 as the benefits of the plant de-bottlenecking project are realised FY24 production guidance not provided
Payable copper equivalent production (kt) ⁽³⁾	30.6	89.0	N/A	
Payable copper production (kt)	25.3	71.8	N/A	
Payable molybdenum production (kt)	0.4	1.5	N/A	
Payable gold production (koz)	9.6	29.9	N/A	
Payable silver production (koz)	253	582	N/A	
Cannington				
Ore processed (kdmmt)	2,618	2,850	2,700	Expected to benefit from the optimised mine configuration delivering earlier access to higher-grade material. Recent strong production performance is expected to continue into FY24
Payable zinc equivalent production (kt) ⁽⁴⁾	224.2	236.1	233.4	
Payable silver production (koz)	12,946	13,500	13,500	
Payable lead production (kt)	120.6	122.0	124.0	
Payable zinc production (kt)	64.5	72.0	68.0	
Cerro Matoso				
Ore to kiln (kt)	2,703	2,850	2,850	Expected to increase by four per cent from FY22 as plant availability returns to normalised levels and the OSMOC project is commissioned, mitigating expected grade decline
Payable nickel production (kt)	41.7	43.5	43.5	
Illawarra Metallurgical Coal				
Total coal production (kt)	6,509	7,400	5,300	Expected to increase by 14 per cent in FY23 with fewer longwall moves and a recovery from wet weather, subject to labour productivity as the operation is currently negotiating the Appin Enterprise Agreements Production expected to decline to 5.3Mt in FY24 as Dendrobium moves to a new mining area, with an expected average run-rate of approximately 5.5Mtpa to FY28
Metallurgical coal production (kt)	5,712	6,500	4,600	
Energy coal production (kt)	797	900	700	
Australia Manganese				
Manganese ore production (kwmt)	3,363	3,400	3,400	Expected to recover from FY22's wet weather and COVID-19 impacts, with the low-cost PC02 circuit expected to continue to operate above nameplate capacity supporting higher volumes
South Africa Manganese				
Manganese ore production (kwmt)	2,069	2,000	Subject to demand	We expect to continue optimising production rates and our use of higher cost trucking in response to market conditions FY24 guidance subject to market demand and not provided

(1) South32's ownership share of operations is as per footnote (3) on page 42.

(2) The denotation (e) refers to an estimate or forecast year. All guidance is subject to further potential impacts from COVID-19.

(3) Payable copper equivalent production (kt) was calculated by aggregating revenues from copper, molybdenum, gold and silver, and dividing the total Revenue by the price of copper. FY22 realised prices for copper (US\$3.50/lb), molybdenum (US\$18.48/lb), gold (US\$1,934/oz) and silver (US\$23.5/oz) have been used for FY22 and FY23e.

(4) Payable zinc equivalent (kt) was calculated by aggregating revenues from payable silver, lead and zinc, and dividing the total Revenue by the price of zinc. FY22 realised prices for zinc (US\$3,248/t), lead (US\$2,046/t) and silver (US\$21.0/oz) have been used for FY22, FY23e and FY24e.

Costs and capital expenditure

We continue to pursue cost efficiencies, having successfully delivered more than US\$50 million of annualised savings across the Group through the simplification of our functional structures and footprint (since FY20). This focus combined with an improvement in planned volumes and lower producer currencies is expected to provide partial relief from further upward pressure on our Operating unit costs in FY23, despite continuing industry-wide inflation in raw material input prices, labour and energy.

Operating unit cost performance and guidance⁽¹⁾⁽²⁾

	FY21	FY22	FY23e ⁽³⁾⁽⁴⁾	Commentary
Worsley Alumina (US\$/t)	214	265	296	FY21 versus FY22: Record volumes more than offset by a significant rise in caustic soda prices (US\$28/t) and elevated global freight rates (US\$10/t) FY23 key guidance assumptions: Significantly higher caustic soda prices and consumption, combined with increased freight costs, partially offset by a weaker Australian dollar
Brazil Alumina (non-operated) (US\$/t)	203	288	Not provided	FY21 versus FY22: Lower volumes and additional costs to recover from the bauxite ship unloader outage (US\$7/t), added to higher raw material (US\$42/t) and energy costs (US\$13/t) FY23 key guidance assumptions: Not provided but expected to continue to be influenced by energy and raw material input prices, including caustic soda
Brazil Aluminium (non-operated) (US\$/t)	N/A	N/A	Not provided	FY23 key guidance assumptions: Not provided but expected to be influenced by the ramp-up profile for all three potlines and the price of raw material inputs
Hillside Aluminium (US\$/t)	1,631	2,137	Not provided	FY21 versus FY22: Significant rise in raw material input costs including alumina, coke and pitch (US\$323/t), and energy cost inflation (US\$45/t) FY23 key guidance assumptions: Not provided but expected to continue to be influenced by the price of raw material inputs, the South African rand and inflation-linked energy costs
Mozal Aluminium (US\$/t)	1,702	2,243	Not provided	FY21 versus FY22: Significant rise in raw material input costs including alumina, coke and pitch (US\$393/t), and energy cost inflation (US\$29/t) FY23 key guidance assumptions: Not provided but expected to continue to be influenced by the price of raw materials inputs, the South African rand and inflation-linked energy costs
Sierra Gorda (non-operated) (US\$/t) ⁽⁵⁾	N/A	14.6	14.8	FY22 Operating unit costs reflect our first period of ownership (1 March 2022 to 30 June 2022) FY23 key guidance assumptions: Efficiencies from the plant de-bottlenecking project, more than offset by higher diesel prices and labour costs
Cannington (US\$/t) ⁽⁵⁾	124	133	129	FY21 versus FY22: Impacted by planned lower throughput as we completed scheduled maintenance and work to support the transition to 100 per cent trucking FY23 key guidance assumptions: Higher throughput from the optimised mine plan and a weaker Australian dollar, to more than offset higher energy prices
Cerro Matoso (US\$/lb)	4.01	4.34	4.97	FY21 versus FY22: Significant increase in price-linked royalties (US\$0.35/lb), energy prices (US\$0.18/lb) and costs to support processing of additional higher-grade Q&P ore (US\$0.15/lb). Partially offset by volume benefits (US\$0.24/lb), a weaker Colombian peso (US\$0.19/lb) and the one-off benefit from the adjustment of a royalty provision (US\$0.14/lb) FY23 key guidance assumptions: Higher price-linked royalties, energy prices and the impact of the prior year's one-off royalty provision adjustment (US\$0.13/lb), partially offset by the benefit of additional volumes

Financial and operational performance summary continued

Operating unit cost performance and guidance⁽¹⁾⁽²⁾ continued

	FY21	FY22	FY23e ⁽³⁾⁽⁴⁾	Commentary
Illawarra Metallurgical Coal				
(US\$/t)	87	126	116	FY21 versus FY22: Significant increase in price-linked royalties (US\$15/t) and the impact of reduced volumes (US\$15/t), including our decision to cease sales of low-margin coal wash material FY23 key guidance assumptions: Higher volumes and a weaker Australian dollar to more than offset labour and energy cost inflation
Australia Manganese ore (FOB)				
(US\$/dmu)	1.52	1.86	2.08	FY21 versus FY22: Lower volumes (US\$0.12/dmu) together with higher diesel prices (US\$0.12/dmu) and consumable costs (US\$0.04/dmu) FY23 key guidance assumptions: Higher labour and contractor costs associated with increased activity as the strip ratio increases (FY23e: 5.9, FY22: 5.1), combined with higher diesel prices, partially offset by a weaker Australian dollar
South Africa Manganese ore (FOB)				
(US\$/dmu)	2.48	2.73	2.66	FY21 versus FY22: Higher distribution and trucking costs to support increased sales volumes of premium products (US\$0.15/dmu) FY23 key guidance assumptions: Drawdown on previously built low-cost inventory from the barrier pillar project and a weaker South African rand

(1) South32's ownership share of operations is as per footnote (3) on page 42.

(2) Operating unit cost is Revenue less Underlying EBITDA, excluding third party sales, divided by sales volumes. Operating cost is Revenue less Underlying EBITDA excluding third party sales.

(3) FY23 Operating unit cost guidance includes royalties (where appropriate) and the influence of exchange rates, and includes various assumptions for FY23, including: an alumina price of US\$364/t; an average blended coal price of US\$265/t for Illawarra Metallurgical Coal; a manganese ore price of US\$6.40/dmu for 44 per cent manganese product; a nickel price of US\$9.94/lb; a silver price of US\$22.11/troy oz; a lead price of US\$2,059/t (gross of treatment and refining charges); a zinc price of US\$3,480/t (gross of treatment and refining charges); a copper price of US\$4.07/lb (gross of treatment and refining charges); a molybdenum price of US\$16.95/lb (gross of treatment and refining charges); a gold price of US\$1,860/troy oz; an AUD:USD exchange rate of 0.69; a USD:ZAR exchange rate of 16.62; a USD:COP exchange rate of 3,851; USD:CLP exchange rate of 814; and a reference price for caustic soda; all of which reflected forward markets as at June 2022 or our internal expectations.

(4) The denotation (e) refers to an estimate or forecast year. All guidance is subject to further potential impacts from COVID-19.

(5) US dollar per tonne of ore processed. Periodic movements in finished product inventory may impact Operating unit costs.

Capital expenditure

Group safe and reliable capital expenditure is expected to increase by US\$312 million to US\$785 million in FY23 with a full year of spend from Sierra Gorda contributing US\$169 million (or 54 per cent) of the increase. We expect our investment at Illawarra Metallurgical Coal to increase by US\$86 million to US\$263 million in FY23 as we continue our work to support the return to a single longwall configuration at Appin from FY25, including projects not executed in FY22 due to adverse weather and COVID-19 related labour constraints.

Group improvement and life extension capital expenditure is expected to increase by US\$56 million to US\$170 million in FY23 as we invest in plant de-bottlenecking projects at Brazil Alumina and Sierra Gorda. At Worsley Alumina, we plan to invest US\$44 million in FY23 as we commence multi-year programs to open up new bauxite mining areas, and advance decarbonisation projects at the refinery. At our manganese business in FY23, we plan to invest in the Eastern Leases mine life extension project (US\$14 million) for Australia Manganese and continue our mine and rail infrastructure upgrades (US\$28 million) at South Africa Manganese.

FY23 growth capital expenditure is expected to increase by US\$193 million to US\$290 million at our Hermosa project in Arizona as we invest in infrastructure to support critical path dewatering and progress study work for the Taylor Deposit, ahead of a planned final investment decision expected in mid-calendar year 2023. Following the decision by the United States Government to invoke the Defense Production Act, supporting the production of critical metals including manganese, we are looking at different options to potentially accelerate the pre-feasibility study for the Clark Deposit.

Capital expenditure guidance (South32's share)⁽¹⁾⁽²⁾

US\$M	FY21	FY22	FY23e ⁽³⁾
Worsley Alumina	51	47	45
Brazil Alumina	25	51	50
Brazil Aluminium	–	1	10
Hillside Aluminium	17	20	30
Mozal Aluminium	10	10	17
Cannington	41	43	60
Cerro Matoso	30	18	40
Illawarra Metallurgical Coal	151	177	263
South Africa Energy Coal	23	–	–
Safe and reliable capital expenditure (excluding equity accounted investments)	348	367	515
Worsley Alumina	4	8	44
Brazil Alumina	–	–	19
Cerro Matoso	15	19	4
Illawarra Metallurgical Coal	37	12	3
South Africa Energy Coal	53	–	–
Other operations	15	19	15
Improvement and life extension capital expenditure (excluding equity accounted investments)	124	58	85
Hermosa	64	97	290
Growth capital expenditure	64	97	290
Total capital expenditure (excluding equity accounted investments)	536	522	890
Total capital expenditure (including equity accounted investments)	606	684	1,245

Equity accounted investments capital expenditure guidance (South32's share)⁽¹⁾⁽²⁾

US\$M	FY21	FY22	FY23e ⁽³⁾
Sierra Gorda	–	36	205
Australia Manganese	53	56	50
South Africa Manganese	15	14	15
Safe and reliable capital expenditure (equity accounted investments)	68	106	270
Sierra Gorda	–	45	43
Australia Manganese	2	6	14
South Africa Manganese	–	5	28
Improvement and life extension capital expenditure (equity accounted investments)	2	56	85
Total capital expenditure (equity accounted investments)	70	162	355

Capitalised exploration guidance (South32's share)⁽¹⁾

US\$M	FY21	FY22	FY23e ⁽³⁾
Capitalised exploration (excluding equity accounted investments)	29	33	55
Equity accounted investments capitalised exploration	1	2	8
Capitalised exploration (including equity accounted investments)	30	35	63

(1) South32's ownership share of operations is as per footnote (3) on page 42.

(2) Total capital expenditure comprises Capital expenditure and evaluation expenditure. Capital expenditure comprises Safe and reliable capital expenditure (Deferred stripping, Regulatory compliance, Risk reduction, and Sustained performance), Improvement (Decarbonisation) and Life extension capital expenditure, and Growth (development of our current and future greenfields growth) capital expenditure.

(3) The denotation (e) refers to an estimate or forecast year. All guidance is subject to further potential impacts from COVID-19.

Financial and operational performance summary continued

Other expenditure guidance

Underlying ETR in FY23 is expected to reflect the composition of the corporate tax rates and earnings from the jurisdictions in which we operate, including the Australia Manganese and Sierra Gorda royalty related tax. All other expenditure guidance is provided in the table below. These items are on a proportional consolidation basis including our manganese and Sierra Gorda equity accounted investments.

	FY22	FY23e ⁽¹⁾	Commentary
Group and unallocated Underlying EBIT (excluding greenfield exploration and third party product and services EBIT)			
(US\$M)	82	100	FY23 guidance reflects a normalised run-rate, including the effect of recent portfolio changes
Underlying depreciation and amortisation			
(US\$M)	788	935	FY23 guidance includes the first full year of owning our interest in Sierra Gorda
Underlying net finance costs			
(US\$M)	155	135	FY23 guidance is expected to reflect a normalised level of expenditure, following one-off costs associated with the Sierra Gorda acquisition in FY22
Greenfield exploration			
(US\$M)	26	44	FY23 guidance reflects increased activity as we advance our greenfield exploration programs targeting base metals in the Americas, Australia and Europe

(1) The denotation (e) refers to an estimate or forecast year. All guidance is subject to further potential impacts from COVID-19.

GOVERNANCE

Board of Directors	64
Directors' report	68
Lead Team	72
Remuneration report	74



Board of Directors



Ms Karen Wood BEd, LLB (Hons), 66
Chair and Independent Non-Executive Director
Appointed: 1 November 2017; Chair: 12 April 2019
Location: Australia

Career summary: Ms Wood has worked in legal practice and business.

In 2001, Ms Wood joined the BHP Group and held several global executive leadership roles, including Group Company Secretary, Chief Governance Officer, Chief People Officer and President People and Public Affairs (Corporate Affairs). Before joining BHP she worked at Bonlac Foods Limited, where she spent five years as General Counsel and Company Secretary. Following her retirement in 2014, she continued as an adviser to BHP's Board and CEO until 2015. She also chaired the BHP Foundation until 2019, overseeing grant provisions for not-for-profit organisations to deliver global programs in the areas of natural resource governance, human capability and social inclusion, and conserving and sustainably managing natural environments.

Other key positions Ms Wood has held include being a member of the Takeovers Panel (Australia) from 2000 to 2012 and roles with the Australian Securities and Investments Commission (Business Consultative Panel) and the Australian Government's Business Regulatory Advisory Group.

External appointments:

ASX listed: Ms Wood is currently a Non-Executive Director of Djerrivarrh Investments Limited (since July 2016).

Ms Wood is also a Director of the Melbourne Cricket Club Foundation, the Robert Salzer Foundation and the Board of the State Library Victoria. She serves on the State Library Victoria Foundation Council, is an ambassador for the Australian Indigenous Education Foundation and is a member of the Advisory Board of the Sir John Monash Leadership Academy.

Skills and experience: Ms Wood brings extensive corporate governance expertise to her roles as Chair of our Board and the Nomination and Governance Committee, and her experienced leadership promotes a cohesive environment of constructive challenge and oversight. Ms Wood's substantial tenure as a global executive within the resources industry means that she brings a strong understanding of the regulatory landscape and the key strategic risks and opportunities for a global mining and metals company. Her expertise in shaping culture (including through organisational and remuneration design), public policy, social performance and stakeholder engagement make her a trusted adviser in these areas.

Mr Graham Kerr BBus, FCPA, 51
Chief Executive Officer
Appointed: October 2014 and as Managing Director on 21 January 2015
Location: Australia

Career summary: Mr Kerr joined BHP in 1994 and held a wide range of operational and commercial roles across the business, including Chief Financial Officer Stainless Steel Materials, Vice President Finance Diamonds and Finance Director for the BHP Canadian Diamonds Company.

In 2004, Mr Kerr joined Iluka Resources Limited as General Manager Commercial. He returned to BHP in 2006, leading to his appointment as President of Diamonds and Specialty Products where he was accountable for the Ekati Diamond Mine in Canada, Richards Bay Minerals joint venture in South Africa, diamonds exploration in Angola, the Corridor Sands Project in Mozambique and the development of BHP's potash portfolio in Canada.

Mr Kerr was appointed BHP's Chief Financial Officer in 2011, a role which he held until 2015 when he left to lead South32 through its demerger from BHP and listing in three countries.

External appointments: Director, CEOs for Gender Equity.

Skills and experience: Mr Kerr's strong track record in resource development, and global experience as a commercial and operational leader within the resource industry, means that he brings deep mining and metals expertise and exceptional financial acumen. His health and safety expertise, and passion for promoting diversity and inclusion, are valued contributions to our Board as it oversees our commitment to elevate our safety performance and instil a culture where everyone feels safe and respected at work. Mr Kerr's strong focus on a purpose-driven and values-led future for South32 make him a trusted leader as we progress the next phase of our strategy.

Committee membership key:

- Chair appointment
- Nomination and Governance Committee
- Remuneration Committee
- Risk and Audit Committee
- Sustainability Committee



Mr Frank Cooper AO, BCom, FCA, FAICD, 66

Independent Non-Executive Director

Appointed: 7 May 2015

Location: Australia

Career summary: Mr Cooper qualified as a chartered accountant in Australia, leading to a 40-year career in the finance and accounting profession. He has held a number of senior tax and finance roles, including Partner at Ernst & Young, Partner / Business Unit Leader, Tax Practice at PricewaterhouseCoopers and Managing Partner for Arthur Andersen in Perth (for just over 10 years), during which time he specialised in the mining, energy and utility sectors.

Throughout his career, Mr Cooper has had extensive involvement in community activities, including serving as Commissioner and Chair of the West Australian Football Commission and member of the State Health Research Advisory Council (Western Australia).

In 2014 Mr Cooper was awarded an Officer of the Order of Australia. He was also named West Australian of the Year in the Professions category in 2015.

External appointments:

ASX listed: Mr Cooper is currently a Non-Executive Director of Woodside Energy Group Limited (since February 2013) and Chair of its Audit and Risk Committee.

Mr Cooper is also Commissioner and Chairman of the Insurance Commission of Western Australia, Pro Chancellor of the University of Western Australia and a Director of St John of God Australia Limited and Wright Prospecting Pty Ltd.

Skills and experience: Mr Cooper brings exceptional financial acumen and accounting expertise, a strong understanding of legal and regulatory compliance and substantial experience in risk management oversight to our Board, all of which also make him a highly capable Risk and Audit Committee Chair. His listed company experience and expertise in capital management and corporate development are highly valued by our Board as it oversees the implementation of our strategy, as is his strong focus on organisational philosophy, values and standards.



Mr Guy Lansdown BSc (Engineering (Civil)),

MSc (Engineering (Project Management)), 61

Independent Non-Executive Director

Appointed: 2 December 2019

Location: Mexico

Career summary: Mr Lansdown completed postgraduate study specialising in civil engineering and project management and in his early career worked as a project director for South African engineering and construction company Group Five, and then as an associate with global consulting firm Knight Piesold in the United States.

In 1993, Mr Lansdown joined Newmont Mining Corporation, where he held many senior positions over his 20 year tenure, including Senior Vice President of Safety, Project Development and Technical Services, Executive Manager Boddington Australia, Operations Manager Minera Yanacocha Peru and Engineering and Development Director Australia. His role through 2012 was Executive Vice President Discovery and Development, where he led Newmont's exploration, technical services and major project development.

External appointments: Mr Lansdown currently provides consulting services through his American company Project Excellence, Inc. He is also President and Director of two charities, Un Futuro Mejor Inc and Fundación Lansdown A.C., which provide opportunities for disadvantaged youth in Mexico to reach their full potential.

Skills and experience: Mr Lansdown's substantial tenure as an executive leader in the gold mining sector and his skills and experience in social performance, enhance our Board's capability to monitor our safety and operational performance and evaluate our response to the key sustainability-related issues facing our business. His extensive experience in early and late stage greenfield and brownfield project development and delivery contribute to our Board's assessment of exploration and development opportunities. In addition, his experience working in the Americas gives him insight into strategic and regulatory issues, which is an asset to our Board as we expand our presence in those locations.

Board of Directors continued



Dr Xiaoling Liu BEng (Extractive Metallurgy), PhD (Extractive Metallurgy), FAusIMM, FTSE, 65

Independent Non-Executive Director

Appointed: 1 November 2017

Location: Australia

Career summary: Dr Liu completed her undergraduate study in Chongqing University in China and her PhD in Extractive Metallurgy at Imperial College in UK, before joining the Rio Tinto Group as a senior research scientist in 1988.

Over her 26-year career with Rio Tinto, Dr Liu held various roles in smelting operations, including General Manager Operations at Bell Bay (Tasmania), leading to other senior operational and management roles, including Managing Director Technical Services, where she led Rio Tinto's global technical services unit. Prior to her retirement, Dr Liu was President and Chief Executive Officer of Rio Tinto Minerals, with responsibility for integrated operations of mining, processing, supply chain, marketing and sales for its Borates business in the United States, Europe and Asia.

Dr Liu has served as Vice President of the Board of the Australian Aluminium Council, a Board Member of the California Chamber of Commerce, a Director of Melbourne Business School and Chancellor of Queensland University of Technology. She has also served as a Non-Executive Director at Newcrest Mining Limited (September 2015 until November 2020) and Iluka Resources Limited.

External appointments:

ASX listed: Dr Liu is currently a Non-Executive Director of Incitec Pivot Limited (since November 2019) and Chair of its Health, Safety, Environment and Community Committee.

Skills & experience: With her accomplished career as a global executive in the resources industry, Dr Liu brings to our Board expertise in mining and processing operations, the execution of major capital projects and commodity value chain management. Her high financial acumen, expertise in health and safety and strong understanding of the key environmental impacts, risks and opportunities relevant to our operations, make her a valued contributor to the Committees on which she serves. Dr Liu's knowledge and experience in technology and innovation, together with her technical background, is an asset to our Board as it oversees our advancement towards a low-carbon future.



Dr Ntombifuthi (Futhi) Mtoba CA(SA), DCom (Honoris Causa), BCompt (Hons), HDip Banking Law, BA (Econ)(Hons), BA (Arts), 67

Independent Non-Executive Director

Appointed: 7 May 2015

Location: South Africa

Career summary: Dr Mtoba qualified as a chartered accountant in South Africa and joined Deloitte and Touche in 1988, specialising in financial services. She was one of the first African Black women to be appointed Partner by one of the Big Four accounting firms, and later was appointed Chairperson of Deloitte Southern Africa.

Dr Mtoba is President and founder of TEACH South Africa, which recruits skilled teachers for underprivileged schools. She has held several board positions at organisations focused on economic development and community engagement, including the New Partnership for Africa's Development Business Foundation and the African Union Foundation. Dr Mtoba has also been President of the Association for the Advancement of Black Accountants and Business Unity South Africa and chaired the University of Pretoria Council for over ten years.

Other positions Dr Mtoba has held include being a member of the International Monetary Fund Advisory Group of Sub-Saharan Africa, the World Economic Forum Global Advisory Council, and the United Nations Global Compact Board. She has received several awards for contributions to business and society, including Most Outstanding Leadership Women of the Year (Africa Economy Builders, 2018).

External appointments: Dr Mtoba is currently a Non-Executive Director and Deputy Chair of the Public Investment Corporation Limited and Chair of its Audit Committee; a Director of Discovery Bank Holdings Limited and Lead Independent Director and Audit Committee Chair of Discovery Bank Limited and a Director of Vumelana Advisory Fund and the International Women's Forum (South Africa).

Skills and experience: Dr Mtoba's tenure as partner and a leader at one of Africa's predominant financial professional services firms, and the numerous roles she has held in local, regional and international organisations and forums, means that she provides our Board with considerable financial, economic and public policy expertise and leadership. Dr Mtoba brings a strong focus on culture and her expertise in social performance and community and stakeholder engagement are an asset to our Board as it supports our aspiration to contribute social and economic value where we operate.



Mr Wayne Osborn Dip Elect Eng, MBA, FTSE, 70

Independent Non-Executive Director

Appointed: 7 May 2015

Location: Australia

Career summary: Mr Osborn worked as an engineer in the telecommunications and iron ore industries, before joining Alcoa (Australia) in 1979.

Mr Osborn held several senior management positions with Alcoa over the course of his career, including having accountability for its Asia-Pacific manufacturing operations in China, Japan, Korea and Australia. In 2001 he was appointed Managing Director, leading an integrated business comprised of bauxite mining, alumina refining, coal mining, power generation and aluminium smelting until his retirement in 2008.

Since 2008, Mr Osborn has served as a Non-Executive Director in the mining, energy and construction industries. Most recently, he was a Non-Executive Director of Wesfarmers Limited from March 2010 to October 2021.

Other key roles Mr Osborn has held include Chairman of the Australian Institute of Marine Science, Chairman of the Western Australia Branch of the Australia Business Arts Foundation and Vice President of the Chamber of Commerce and Industry, Western Australia. He is also a recipient of the WA Business Leader Award (2007) and the Australian Institute of Company Directors Award for Excellence (2018).

External appointments: None.

Skills and experience: Mr Osborn brings expertise in mining and smelting operations, large-scale capital projects and commodity value chain management to our Board. His broad skills and experience in health and safety management and strong understanding of the key environmental issues, risks and opportunities relevant to our operations, are an asset to our Board as it oversees our commitments to improve our safety performance, address climate change and manage our environmental impact. Mr Osborn's experience leading large workforces, expertise in overseeing remuneration design and implementation and strong focus on sustainability, make him a highly capable Remuneration Committee Chair.



Mr Keith Rumble BSc, MSc (Geology), 68

Independent Non-Executive Director

Appointed: 27 February 2015

Location: South Africa

Career summary: Mr Rumble is a qualified geologist. He joined Richards Bay Minerals (at that time, a joint venture between BHP and the Rio Tinto Group) in 1980, working in smelting and metallurgy, and held various management positions before becoming CEO in 1996. Prior to that appointment, Mr Rumble spent just under three years with Rio Tinto's iron and titanium business as Director of International Sales and Marketing and re-joined the business in 2000 as President and CEO of Rio Tinto Iron and Titanium Inc. in Canada.

In 2001, Mr Rumble joined Impala Platinum, where he held the role of CEO until 2006, after which he moved to junior miner SUN Mining (part of the SUN Group), also as CEO.

Since his retirement as an executive in 2008, Mr Rumble has held Non-Executive Director positions at the BHP Group and South African infrastructure and resources company, Aveng Limited.

External appointments: Mr Rumble is currently a Director of Enzyme Technologies (Pty) Limited and Elite Wealth (Pty) Limited.

Skills and experience: With his substantial tenure as an executive leader in the resources industry, Mr Rumble brings deep knowledge and experience in mining and smelting operations. His expertise in geological and geoscience matters and strong understanding of the key environmental impacts, risks and opportunities relevant to our business, enhance our Board's capability to oversee our sustainability commitments, risks and impacts. These skills, together with his health and safety management expertise and proficiency in risk management, make him a highly capable Sustainability Committee Chair.

Directors' report

This report is presented by the Board of Directors of South32 Limited, together with the Group's Financial report, for the financial year ended 30 June 2022.

The report is prepared in accordance with the requirements of the Corporations Act, with the following information forming part of the report:

- Operating and financial review on the inside front cover to page 62;
- Director biographical information on pages 64 to 67;
- Remuneration report on pages 74 to 102;
- Note 19(a) Financial risk management objectives and policies on pages 140 to 144;
- Note 20 Share capital on page 150;
- Note 21 Auditor's remuneration on page 151;
- Note 23 Employee share ownership plans on pages 152 to 155;
- Directors' declaration on page 166;
- Auditor's independence declaration on page 167;
- Resources and Reserves on pages 172 to 179;
- Shareholder information on pages 181 to 183; and
- Corporate directory on the inside back cover.

Directors and meetings

At the date of this report, the Directors in office were:

Ms Karen Wood

Appointed 1 November 2017

Mr Graham Kerr

Appointed 21 January 2015

Mr Frank Cooper AO

Appointed 7 May 2015

Mr Guy Lansdown

Appointed 2 December 2019

Dr Xiaoling Liu

Appointed 1 November 2017

Dr Ntombifuthi (Futhi) Mtoba

Appointed 7 May 2015

Mr Wayne Osborn

Appointed 7 May 2015

Mr Keith Rumble

Appointed 27 February 2015

You can find information about our Directors' qualifications, experience, special responsibilities and other directorships on pages 64 to 67.

Board and Committee meetings and Director attendance

There are nine regularly scheduled meetings of our Board each year. Six of these are usually held face-to-face over three days and are held in one of our main geographic areas of operation to allow Directors to conduct site visits. Committee meetings are also held during this time. A further three meetings are convened each year to consider annual disclosures, including half and full year results, and are usually held virtually. Additional meetings are convened as required to address business critical issues.

During FY22, there were a total of 15 Board meetings. The additional meetings were held to oversee the acquisition of a 45 per cent interest in the Sierra Gorda copper mine, the issuance of US\$700 million of senior unsecured notes in the United States of America and to consider other business critical issues and continuous disclosure obligations. The FY22 Board program included a dedicated strategy day held in April 2022.

In an ongoing response to the COVID-19 pandemic and related travel disruptions, our virtual format continued for the majority of Board and Committee meetings in FY22. Following the easing of travel and social distancing restrictions in late FY22, our Board was able to meet physically in April and June 2022 and conducted site visits to Worsley Alumina in Australia and Sierra Gorda in Chile, respectively.

In addition to the two site visits, during the period of FY22 when it was not possible to visit our sites due to COVID-19, our Board continued to stay connected with our operations by way of operational overviews and briefing sessions conducted as part of the Board programs.

To help it carry out its responsibilities, our Board has four standing Board Committees. From time to time, the Board creates other committees to address important matters and areas of focus for the business. For example, a committee was established to oversee the Company's acquisition of an interest in the Sierra Gorda copper mine.

All Directors have a standing invitation to attend all Committee meetings, with the consent of the relevant Committee Chair. In practice, all Directors generally attend all meetings.

You will find the number of Board and Committee meetings held in FY22, as well as the Directors who attended them, in Table 1.1.

Our Chair sets the agenda for each Board meeting, with the Chief Executive Officer (CEO) and the Company Secretary. The meetings typically include:

- Minutes of the previous meeting and matters arising;
- Report from our Chair;
- Update on various governance matters;
- CEO's report;
- Finance report;
- Commercial report;
- Reports on major projects and strategic matters;
- Board Committee Chair reports;
- Continuous disclosure checkpoint; and
- Closed sessions with Directors and closed sessions with Non-Executive Directors only.

In between meetings, our Board receives regular reports from senior management on matters, including (but not limited to):

- Sustainability (including health and safety) performance;
- Financial and production performance;
- Government relations and political affairs; and
- Investor relations updates (including ESG updates).

Further, our Board receives updates on relevant issues such as cybersecurity risks, climate change, carbon emissions reduction targets including information on evolving regulation and policy developments, shifting societal expectations, sexual harassment in the workplace, culture, inclusion and diversity, cultural heritage, community matters, business integrity and litigation. It also receives regular reports for discussion on operational, culture and leadership, corporate governance and other business matters, including market updates and market research.

As part of their ongoing education and training, during FY22 our Board received external briefings on various matters including cybersecurity risk, climate risk governance and disclosure matters, workplace sexual harassment and evolving regulation and policy developments and shifting societal expectations in relation to these areas.

Table 1.1 Board and Committee Meeting Attendance in FY22

Director	Board		Nomination and Governance Committee		Remuneration Committee		Risk and Audit Committee		Sustainability Committee	
	Eligible ⁽¹⁾	Attended ⁽²⁾	Eligible ⁽¹⁾	Attended ⁽²⁾	Eligible ⁽¹⁾	Attended ⁽²⁾	Eligible ⁽¹⁾	Attended ⁽²⁾	Eligible ⁽¹⁾	Attended ⁽²⁾
K Wood	15	15	5	5	7	7	-	10	8	8
G Kerr (CEO)	15	15	-	5	-	7	-	10	-	8
F Cooper	15	15	5	5	7	7	10	10	-	8
X Liu	15	15	5	5	-	7	10	10	8	8
G Lansdown ⁽³⁾	15	14 ⁽⁴⁾	5	5	6	7	10	10	8	8
N Mtoba	15	15	5	5	-	7	10	10	-	8
W Osborn	15	15	5	5	7	7	-	10	8	8
K Rumble	15	14 ⁽⁴⁾	5	5	7	7	-	10	8	8

Member Chair

(1) Indicates the number of meetings held during FY22 while the Director was a member of the Board or Committee.

(2) Indicates the number of meetings the Director attended during FY22.

(3) G Lansdown was appointed as a member of the Remuneration Committee effective 1 August 2021.

(4) The Director attended all scheduled meetings in FY22 and was unable to attend a meeting outside of the regular Board schedule which was convened on short notice. The Director was consulted separately by the CEO prior to the meeting.

Principal activities, state of affairs and review of operations

Principal activities and significant changes during the year

In FY22, the principal activities of the Group were mining and metal production, from a portfolio of assets that included bauxite, alumina, aluminium, copper, silver, lead, zinc, nickel, metallurgical coal and manganese.

On 6 January 2022, the Group announced its decision to participate in a restart of the Alumar aluminium smelter in Brazil, together with our joint venture partner Alcoa Corporation.

On 22 February 2022, the Group completed its acquisition of a 45 per cent interest in the Sierra Gorda copper mine in Chile.

On 29 April 2022, the Group acquired an additional 18.2 per cent shareholding and related rights in the Mineração Rio do Norte (MRN) bauxite mine in Brazil. The additional interest increased the Group's shareholding to 33 per cent.

On 31 May 2022, the Group acquired an additional 16.6 per cent shareholding and related rights in Mozal Aluminium in Mozambique. The acquisition increased the Group's shareholding to 63.7 per cent.

There were no other significant changes in the Group's principal activities during the year.

State of affairs

There were no significant changes in the Group's state of affairs during the year, other than the restart of the Alumar aluminium smelter, the acquisition of the Group's interests in Sierra Gorda and the additional interests acquired in MRN and Mozal Aluminium, and as set out in the Operating and financial review on the inside front cover to 62.

Review of operations, likely developments and expected results

A review of the Group's FY22 operations is set out in the Operating and financial review on the inside front cover to 62. The Operating and financial review also includes likely developments in the Group's operations in future financial years and expected results.

Dividends

We paid the following dividends during FY22:

Dividend	Total dividend	Payment date
Final dividend of US 3.5 cents per share (fully-franked) for the year ended 30 June 2021	US\$163 million	7 October 2021
Special dividend of US 2.0 cents per share (fully-franked) for the year ended 30 June 2021	US\$93 million	7 October 2021
Interim dividend of US 8.7 cents per share (fully-franked) for the half year ended 31 December 2021	US\$404 million	7 April 2022

Matters since the end of the financial year

Non-core royalty sale

On 19 July 2022, the Group completed the sale of a package of four non-core base metal royalties to Anglo Pacific Group Plc (Anglo Pacific) in exchange for consideration comprising both cash and shares. The Group recognised a gain on the sale of US\$192 million (US\$134 million post tax) in the 2023 financial year. Following completion, the Group holds a 16.7 per cent interest in Anglo Pacific.

Dendrobium Next Domain (DND) project

During the year ended 30 June 2021, the New South Wales Independent Planning Commission (IPC) refused the application for the DND project at Illawarra Metallurgical Coal (IMC). The decision by the IPC introduced uncertainty over the future of the DND project's value contribution to the IMC cash generating unit (CGU) recoverable amount assessment. The Group assessed the potential implications of the IPC decision and as a result recognised an impairment of the IMC CGU of US\$728 million during the 2021 financial year.

On 23 August 2022, the Group announced that it will not proceed with the investment in the DND project following its consideration of recently completed study work and extensive analysis of alternatives considered for the complex. With this decision, the Group will focus on continuing to optimise Dendrobium and the broader IMC complex to extend the mine life within approved domains. In light of the impairment that was recognised during the 2021 financial year, the decision not to proceed with the investment in the DND project has not resulted in an additional impairment charge and the carrying value for the IMC complex remains appropriate as at 30 June 2022.

Capital management

On 25 August 2022, the Directors resolved to pay a fully-franked final dividend of US 14.0 cents per share (US\$648 million) and a fully-franked special dividend of US 3.0 cents per share (US\$139 million) in respect of the 2022 financial year. The dividends will be paid on 13 October 2022. The dividends have not been provided for in the consolidated financial statements and will be recognised in the 2023 financial year.

Directors' report continued

On 25 August 2022, the Group also announced an increase to the existing capital management program, announced in March 2017, of US\$156 million to a total of US\$2.3 billion. This leaves US\$250 million expected to be returned by 1 September 2023.

No other matters or circumstances have arisen since the end of the financial year that have significantly affected, or may significantly affect, the operations, results of operations or state of affairs of the Group in subsequent accounting periods.

Remuneration and share interests

Table 1.2 Directors' Relevant Interests in South32 Limited Shares

Director	Number of South32 Limited shares in which a relevant interest is held as at the date of this Directors' Report
K Wood	367,825
G Kerr (CEO) ⁽¹⁾	9,854,524
F Cooper	128,010
G Lansdown	80,000
X Liu	60,000
N Mtoba	71,386
W Osborn	174,104
K Rumble	161,380

(1) At the date of this Directors' Report, G Kerr's total interest includes 3,953,544 South32 Limited ordinary shares and 5,900,980 rights over South32 Limited shares held under the South32 Equity Incentive Plan.

Rights and options over South32 Limited shares

No rights or options over South32 Limited ordinary shares are held by any of our Non-Executive Directors.

Our CEO and Managing Director, Graham Kerr, holds rights over South32 Limited shares, granted under the South32 Equity Incentive Plan. You can find more details about this in the Remuneration report on page 100.

The total number of rights over South32 Limited shares on issue as at 30 June 2022 is set out in note 23 to the financial statements (Employee share ownership plans) on pages 152 to 155.

South32 Limited does not have any options on issue. No options or rights have been granted since the end of FY22.

As of the date of this report, the total number of rights over South32 Limited shares on issue is 42,614,372. The Remuneration report contains details of rights on issue. No shares have been issued on vesting of rights during or since the end of FY22.

Company Secretary

Claire Tolcon

LLB, BComm, GCertCorpMgt, FGIA

Claire Tolcon is our Manager Company Secretariat and Corporate Counsel. She was appointed Company Secretary on 30 October 2020. Before joining South32 in 2017, Claire held the role of General Counsel and Company Secretary for a number of ASX listed entities, prior to which she was a partner of a corporate law firm in Perth. She holds a Bachelor of Laws and Bachelor of Commerce from Murdoch University and a Graduate Diploma of Applied Finance and Investment from Kaplan.

Indemnities and insurance

The South32 Limited Constitution requires that we indemnify each Director and Company Secretary (including employees appointed as directors of a Group company) on a full indemnity basis and to the extent permitted by law against liability incurred by them in their capacity as an officer of any Group company. The Directors and the Company Secretary named in this report have the benefit of this indemnity (as do individuals who formerly held one of these positions).

As permitted by our Constitution, South32 Limited has entered into Deeds of Indemnity, Access and Insurance with each of the Company's Directors, Company Secretary and the Chief Financial Officer under which we agree to indemnify those persons on a full indemnity basis and to the extent permitted by law.

We purchase Directors' and Officers' liability insurance which insures against certain liabilities (subject to exclusions) in respect of current and former Directors and other Officers of the Group. Due to confidentiality obligations and undertakings of the insurance, we can't disclose any further details about the premium or insurance.

During FY22 and as at the date of this Directors' report, no indemnity in favour of a current or former Director or Officer of the Group has been called on.

Corporate Governance

Under ASX Listing Rule 4.10.3, ASX listed entities are required to benchmark their corporate governance practices against the fourth edition of the ASX Corporate Governance Council's Corporate Governance Principles and Recommendations (ASX Recommendations).

South32 is compliant with all relevant ASX Recommendations.

Our Corporate Governance Statement is available at www.south32.net/who-we-are/risk-governance. It also contains the information required under the UK Financial Conduct Authority's Disclosure Guidance and Transparency Rules.

Auditor

Our External Auditor has provided an independence declaration in accordance with the Corporations Act, which is set out on page 167 and forms part of this report.

The External Auditor also provides our Directors with an independent assurance conclusion. This relates to certain sustainability information and is in accordance with the International Standards on Assurance Engagements ISAE 3000 Assurance Engagements other than Audits or Reviews of Historical Financial Information and ISAE 3410 Assurance Engagements on Greenhouse Gas Statements.

A copy of the External Auditor's assurance report is included in the Sustainability Databook, available at www.south32.net

Non-audit services

All non-audit services provided by our External Auditor are considered and approved in accordance with the process set out in our Provision of Non-Audit Services Policy.

No non-audit services were undertaken by, and no amounts paid to, our External Auditor during FY22. Refer to note 21 to the financial statements (Auditor's remuneration) on page 151.

Political donations and community investment

Our Code of Business Conduct sets out our approach to political donations and community investment.

In FY22, we made no political donations to any political party, politician, political party official, elected official or candidate for public office in any country. On occasion, our representatives attend political events that charge an attendance fee where attendance is approved beforehand in accordance with our internal approval requirements. We record the details of attendances and the relevant costs at a corporate level.

In FY22, we contributed US\$31.1 million for the purposes of supporting community programs that comprised direct investment, in-kind support and administrative costs. For more information on our community investment, please visit www.south32.net/community-society/community-investment.

Proceedings on behalf of South32

No proceedings have been brought or intervened in on our behalf, nor any application made under section 237 of the Corporations Act.

Environmental performance

Performance in relation to environmental regulation

We seek to be compliant with all applicable environmental laws and regulations relevant to our operations.

We classify environmental incidents based on actual and potential impact type as defined by our internal material risk management standard. In FY22, there were no environmental events that resulted in a major impact to the environment.

Fines and prosecutions

In February 2022, South Africa Manganese received a fine of ZAR1 million (US\$65,000) to rectify a legacy issue related to unlawful disposal of waste into Adams Pit and the clearing of vegetation to extend stockpiles without the required authorisations. In determining the value of the fine (which was considered relatively low under current regulations), the regulator assessed that the impact associated with the activities as low and localised. The fine was paid in April 2022.

In March 2022, Mozal Aluminium paid a fine of US\$162,000 in relation to a process failure in June 2021 that resulted in emissions from the fume treatment plant. The incident was reported to authorities in accordance with operating license requirements.

In April 2022, Cerro Matoso received and paid a fine of CLP134 million (US\$33,000) relating to an environmental violation of exceeding emissions in the chimney of a drying oven in 2015.

Rounding of amounts

South32 Limited is an entity to which the *Australian Securities and Investments Commission (ASIC) Corporations (Rounding in Financial/Directors' Reports) Instrument 2016/191* (ASIC Instrument 2016/191) applies. We have rounded amounts in this report in accordance with ASIC Instrument 2016/191. This means the amounts in this report and the financial statements have been rounded to the nearest million US dollars, unless stated otherwise.

Responsibility statement

The Directors state that to the best of their knowledge:

- a) The consolidated financial statements and notes on pages 103 to 165 were prepared in accordance with applicable accounting standards, give a true and fair view of the assets, liabilities, financial position and profit and loss of the Group and the undertakings included in the consolidation taken as a whole; and
- b) The Directors' report includes a fair review of the development and performance of the business and the position of the Group and the undertakings included in the consolidation taken as a whole, together with a description of the principal risks and uncertainties they face.

This Directors' report and the responsibility statement are made in accordance with a resolution of the Board.



Karen Wood
Chair



Graham Kerr
Chief Executive Officer and Managing Director

Date: 8 September 2022

Lead Team



Graham Kerr
BBUS, FCPA, 51
Chief Executive Officer
and Managing Director

See page 64 for Graham Kerr's qualifications and experience.

Katie Tovich
BCom, CA, GAICD, 52
Chief Financial Officer

Katie Tovich joined South32 in 2015 and became our Chief Financial Officer in May 2019. Prior to this role, Katie was Vice President Corporate Affairs and Investor Relations, as well as Head of Treasury. She is responsible for Financial Reporting, Financial Analysis, Treasury, Business Evaluation, Tax, Investor Relations, Risk and Group Assurance.

Katie brings more than 25 years of global experience in the resources sector. Before joining South32, she held senior finance and marketing roles at BHP in Australia and Asia, including Vice President Corporate Finance, Head of Finance Worsley Alumina and Vice President Finance Marketing – Carbon Steel Materials. Earlier in her mining career, she held finance and marketing leadership positions at WMC Resources Limited in Australia and North America.

Katie holds a Bachelor of Commerce from the University of Tasmania, is a member of Chartered Accountants Australia and New Zealand and is a graduate of the Australian Institute of Company Directors.

Jason Economidis
MBA (Executive), GAICD, 53
Chief Operating Officer
Australia

Jason Economidis became our Chief Operating Officer in July 2020, assuming responsibility for Australia Manganese, Cannington, Illawarra Metallurgical Coal and Worsley Alumina. Prior to this role, Jason was Vice President Operations at Illawarra Metallurgical Coal.

Jason is an experienced mining executive having worked in the sector in Australia and overseas for more than 25 years. He joined South32 from Orica, where he held the position of Vice President Coal and was responsible for 25 mining operations across Queensland and New South Wales.

Jason has held several other senior positions in the industry including General Manager of the Coppabella and Moorvale Complex for Peabody Energy, Chief Operating Officer of Vale Coal Australia, General Manager of Goonyella-Riverside and Caval Ridge, Vice President Health, Safety, Environment and Community for BHP and Chief Operating Officer of Discovery Metals, based in Botswana.

Jason holds a Master of Business Administration (Executive) from the Australian Graduate School of Management and is a graduate of the Australian Institute of Company Directors.

Noel Pillay
NHDP Mech Eng, 54
Chief Operating Officer Africa
and Colombia

Noel Pillay became our Chief Operating Officer in October 2021 and is responsible for our operations in Africa and Colombia.

Prior to this role, Noel was Vice President Operations at Worsley Alumina where he was responsible for the operation's safety, production and cost performance. Before his time at Worsley Alumina, Noel was Vice President Operations at Hillside Aluminium in South Africa.

Before joining South32, Noel worked for BHP from 1994 as a Maintenance Engineer at Hillside Aluminium and has held several leadership roles in Maintenance, Production, Business Improvement and Human Resources in South Africa and Australia.

Noel is a trained Mechanical Engineer and holds a National Higher Diploma from the University of Johannesburg.



Vanessa Torres
BSc (Chemical), MEng, DEng, 52
Chief Technical Officer

Vanessa Torres became our Chief Technical Officer in July 2020. She is responsible for Technology, Innovation, Business Optimisation, Risk Management, Capital Projects as well as Health, Safety, Environment and Technical Stewardship.

Vanessa joined South32 in August 2018 as Chief Technology Officer. Before this role, she was Vice President Operational Infrastructure for BHP Western Australia Iron Ore. She has 30 years of global mining experience across Australia, Canada, Brazil, Peru and New Caledonia, and has held various senior roles at BHP and Vale in strategy, projects, business development and operations.

Vanessa holds Doctorate and Master degrees in Minerals Engineering from the University of Sao Paulo, and a Bachelor of Science from the Federal University of Minas Gerais, Brazil. She was also a Visiting Scholar at the University of British Columbia, Canada, where her research focused on the application of artificial intelligence to the mining industry.



Brendan Harris
BSc, CPA, 50
Chief Human Resources and Commercial Officer

Brendan Harris became our Chief Human Resources and Commercial Officer in November 2020 and is responsible for our Human Resources, Marketing and Supply functions. Before his role was expanded, Brendan was our Chief Commercial Officer between January and November 2020.

Brendan joined South32 as our inaugural Chief Financial Officer, looking after Financial Reporting, Management Reporting, Treasury, Business Evaluation, Tax, Corporate Affairs, Investor Relations, Risk and Assurance, and Brazil Alumina. Brendan played a key role in the demerger from BHP in 2015 and South32's public listing in three countries, in addition to developing our capital management framework.

Before joining South32, Brendan was Head of Investor Relations at BHP, based in the United Kingdom and then Australia, where he was the Vice President Investor Relations Australasia. During his career, he also held roles in investment banking, including Executive Director Metals and Mining Research at Macquarie Equities.

Brendan holds a Bachelor of Science in Geology and Geophysics from Flinders University.



Kelly O'Rourke
LLB, BCom, MAICD, 43
Chief Legal and External Affairs Officer

Kelly O'Rourke was appointed to the role of Chief Legal and External Affairs Officer in July 2021 and is responsible for Legal, Company Secretary, Business Integrity, Communications, Community, Government and Sustainability Strategy. Prior to this, Kelly was our Chief External Affairs Officer, having been appointed to the Lead Team in November 2020.

Kelly joined South32 in 2016 as Head of Corporate Affairs and Investor Relations and later became Vice President Corporate Affairs. She previously worked at BHP for nine years where she held senior roles in Legal, Business Development, Mergers and Acquisitions and the Office of the Chief Executive.

Kelly has more than 15 years' experience in the mining industry across legal, commercial, business development, mergers and acquisitions, corporate affairs and community roles, and has worked in Australia, the United Kingdom, Asia, Europe, Africa and the Americas.

Kelly holds a Bachelor of Laws (Distinction) from The University of Western Australia and a Bachelor of Commerce from Curtin University.

From November 2021 to August 2022, Kelly was on parental leave. During this time accountability for External Affairs moved to the Chief Financial Officer and accountability for Legal moved to Chief Executive Officer.



Simon Collins
BE (Mining), MBA, 49
Chief Development Officer

Simon Collins became our Chief Development Officer in October 2018. He is responsible for Greenfields Exploration, Corporate Development, Brazil Alumina, Brazil Aluminium, Sierra Gorda and the Hermosa project. He also represents South32 on the Board of Directors of Ambler Metals LLC.

Simon brings over 25 years' experience in the resources industry in senior leadership and business development roles. Before joining South32, he worked for BHP for more than a decade, providing leadership to the business development teams in Australia, Belgium, Singapore and the United Kingdom. He began his career in mine operations initially in Australia and then South Africa.

Simon holds a Master of Business Administration from London Business School and a Bachelor of Engineering (Mining) from the University of New South Wales.

LETTER FROM OUR REMUNERATION COMMITTEE CHAIR



Dear Shareholders,

On behalf of the Board, I am pleased to present the Remuneration report for the financial year to 30 June 2022 (FY22).

Our performance

In FY22, we took important steps to transform our portfolio toward the metals critical to a low-carbon future and we accelerated the decarbonisation activities that will help us achieve our climate change objectives.

Our operations delivered to revised plans, despite a challenging external environment which included managing the ongoing impacts of COVID-19, labour availability and extreme weather events. We delivered record production at Worsley Alumina and operated at maximum technical capacity at Hillside Aluminium and Mozal Aluminium. The combination of consistent operating performance and favourable market conditions allowed us to deliver a 282 per cent increase in Underlying EBIT and a 432 per cent increase in Underlying earnings. These record levels of profitability underpinned record shareholder returns in respect of FY22, including dividends totalling US\$1.2B and a further US\$128M returned via our ongoing on-market share buy-back.

Following the divestment of South Africa Energy Coal and TEMCO in FY21, we restated our Total Recordable Injury Frequency (TRIF) for previous years and on this basis our TRIF for FY22 decreased by 12 per cent to 5.3 per million hours worked (FY21 6.0). While our TRIF did not meet our 20 per cent reduction target, we made strong progress in reducing injuries at a number of sites and significant progress in reducing potential material health exposures. More broadly, a further improvement in hazard management was embedded and this will remain a critical focus given its role as a key leading indicator for health and safety outcomes.

Our performance across the year is recognised in our Business Scorecard, where an overall outcome of 99.6 per cent (out of a possible 150 per cent) was achieved (refer to page 87 for additional detail).

Application of the Business Modifier

As the intent of the short-term incentive (STI) is to focus our executives on what they can influence in the performance year, we remove the impacts of external factors such as commodity price volatility and foreign exchange rate movements. Conversely, the Business Modifier component of the STI considers factors not specifically contemplated in the Business Scorecard such as fatalities, other unexpected events, and the shareholder experience, to ensure unintended reward outcomes are avoided.

Notwithstanding our stable operating performance and strong financial results, the Board's primary concern when considering the application of the Business Modifier for FY22 related to the loss of our colleague, Desmin Mienies, who was fatally injured at our Wessels mine. Recognising our commitment that our employees and contractors must go home safely at the end of every shift, the Board chose to exercise its discretion by reducing the overall STI outcome for both the CEO and the Chief Operating Officer accountable for South Africa Manganese at the time of the fatality by 20 per cent. A reduction of five or ten per cent has also been applied to the STI outcome of other Executive key management personnel (KMP) and members of the Lead Team. The application of the Business Modifier reflects our commitment to safety and takes all factors into account, including overall reward for the CEO and Executive KMP (see page 89).

Changes to the reward framework

We announced enhancements to our Reward Framework in the FY21 Remuneration report following completion of an extensive review and a series of engagements with investors and other external stakeholders. We have implemented these enhancements from FY22, which include:

- A 33 per cent reduction in the face value of the long-term incentive (LTI) for all Executive KMP;
- The incorporation of two strategic measures for 20 per cent of our LTI, directly linking executive reward to climate change and the transition of our portfolio toward the metals critical to a low-carbon future;
- An increase in the weighting of the financial measures in the STI to achieve an appropriate balance across the elements of variable pay, given the inclusion of our strategic measures in the LTI; and
- A shift from an index to a constituent group of companies for the global mining comparator group in the LTI, against which two-thirds of relative total shareholder return performance is measured, to better align our approach to market practice.

We were pleased to receive strong support for these changes at the 2021 Annual General Meeting with over 98 per cent voting 'for' the Remuneration report.

We have included an initial update for our strategic measures in this report to highlight the early progress we've made in the first year of the four-year performance period (refer to page 94 for this update). We have advanced our decarbonisation initiatives with the completion of feasibility studies and other foundational work, while we also made material changes to our portfolio with the integration of a 45 per cent interest in the Sierra Gorda copper mine in Chile and the addition of low-carbon aluminium production capacity (refer to page 94 for additional detail).

We will continue to provide progress updates for our strategic measures in future Remuneration reports to ensure shareholders have a clear view of how the Board and Committee assess performance with the final outcome determined at the end of the four-year performance period.

Long-term incentive outcomes

The LTI is the component of executive remuneration most closely linked to the shareholder experience as it rewards executives for the delivery of returns that exceed peer benchmarks across a four-year period. While South32 delivered a total shareholder return (TSR) of 37 per cent over the four-year performance period of the FY19 LTI, including 60 per cent in FY22 alone, our TSR fell short of the threshold level required for vesting, such that all awards granted lapsed in full.

During FY22, there were important changes to Executive KMP with Mike Fraser, our inaugural Chief Operating Officer Africa, departing and Noel Pillay replacing him as Chief Operating Officer Africa and Colombia. In parallel, Jason Economidis was permanently appointed to the Chief Operating Officer Australia role, having acted in this capacity throughout FY21.

Importantly, only performance-tested rights are granted to Lead Team members, in accordance with standard practice. We do not however penalise executives when they are promoted to the Lead Team, but rather allow them to retain awards granted when they were in prior management roles, with the respective vesting conditions. As a result, service-based awards previously granted to Noel Pillay and Jason Economidis have vested in FY22. Katie Tovich's performance-based Transitional LTI award will also partially vest, noting this award was granted to Katie when she was promoted to the Lead Team to avoid a potential gap in vesting arising from her transition from the Management Share Plan to the LTI.

Looking forward to FY23

To ensure we continue to pay executives appropriately, we annually benchmark KMP remuneration against similar-sized Australian listed companies and global mining companies that reflect the size, commodity mix, complexity and global presence of South32. Following the completion of this process, the Board decided to award a five per cent increase to the fixed remuneration of our CEO in recognition of his extensive experience and skillset after seven years in role, noting this adjustment will be his second increase in that time. Fixed remuneration for other Executive KMP has also been adjusted to recognise performance and experience, and external market pressures. Finally, to maintain competitive director fees, a three per cent increase will be applied to the Chair fee and Base fees for other Non-Executive Directors.

Our FY23 Scorecard and LTI metrics will continue to focus executives on the safe delivery of our business priorities and the creation of sustainable, long-term value for shareholders. We look forward to continuing to engage with shareholders and sharing in the future success of the company.

Thank you for your support.



Wayne Osborn

Chair, Remuneration Committee

FY22 at a glance

Record dividends in respect of FY22

US\$1,192M

Underlying EBIT⁽¹⁾ up 282% on FY21

US\$3,967M

FY22 Total Shareholder Return⁽²⁾
60%

Total Shareholder Return (TSR)⁽³⁾

Diagram 1.1 – Four-year South32 TSR relative to comparator groups (AUD)

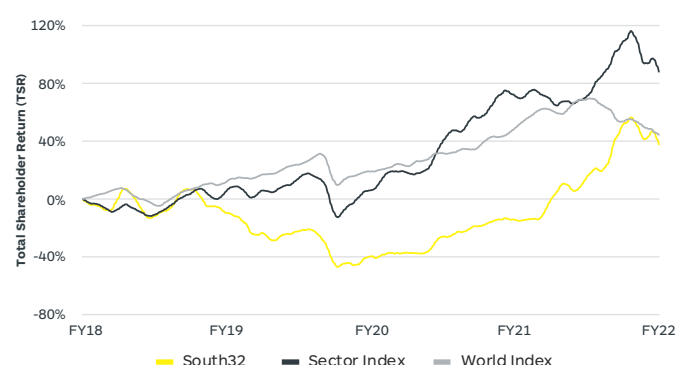
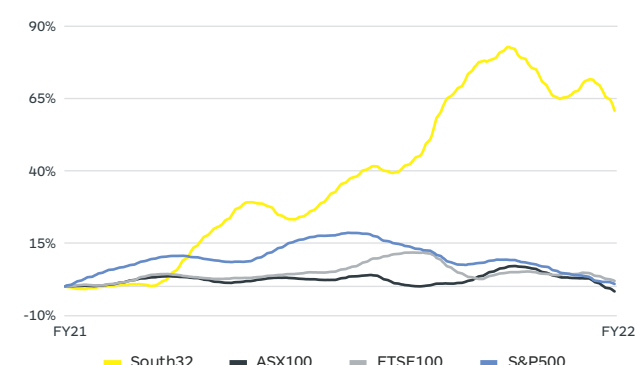


Diagram 1.2 – One-year South32 TSR relative to key indices (AUD)



(1) This number has not been prepared in accordance with IFRS.

(2) TSR calculation uses June 2021 average return at the start and June 2022 average return at the end of the measured period.

(3) Rolling 22 day average TSR.

The following table outlines historic business performance outcomes.

Table 1.1 – Business performance

Performance measures ⁽¹⁾	FY22	FY21	FY20	FY19	FY18
Underlying EBIT (US\$M) ⁽²⁾	3,967	1,039	622	1,797	2,109
Underlying earnings (US\$M) ⁽²⁾	2,602	489	193	992	1,327
Closing net cash/(debt) (US\$M)	538	406	298	504	2,041
Movement in adjusted ROIC (percentage point) ⁽³⁾	0.4	0.7	0.0	(1.4)	(6.8)
Closing share price on 30 June (A\$)	3.94	2.93	2.04	3.18	3.61 ⁽⁴⁾
Dividends/special dividends paid (US cents)	14.2	2.4	5.0	13.0	13.7
Total Recordable Injury Frequency (per million hours worked) (unaudited)	5.3	4.3 ⁽⁵⁾	4.2	4.5	5.1

(1) The financial information in this table has not been prepared in accordance with IFRS.

(2) The basis of the Group's underlying financial results has been updated from FY22, with these changes also reflected in the FY21, FY20, FY19 and FY18 comparative information. There is no change to the Group's statutory reporting. Our material Equity Accounted Investments (EAI) are now included in our underlying financial results on a proportional consolidation basis, consistent with how their performance is assessed by the Group's Board and management and consistent with the reporting of the Group's operating segments. Refer to page 112 of the Annual Report for a reconciliation to statutory earnings.

(3) The movement in adjusted ROIC is by reference to the previous performance period and removes the effect of changes in commodity prices, commodity price linked costs, market traded consumables, foreign exchange rates and movements in the Group's Underlying ETR which includes our material equity accounted investments on a proportional consolidated basis, divided by the sum of fixed assets (excluding any rehabilitation asset and unproductive capital expenditure on growth and life extension projects, and adjusted for impairment impacts) and inventories.

(4) The closing share price on 30 June 2017 was A\$2.68.

(5) TRIF baseline adjusted at end FY21 to account for the removal of SAEC and TEMCO from the portfolio, measuring our FY22 performance against a TRIF of 6.0.

FY22 Executive remuneration overview

Executive key management personnel (KMP) changes

On 30 November 2021, Mike Fraser stepped down from his role as Chief Operating Officer Africa to pursue opportunities outside of South32 and ceased to be a member of Executive KMP at this time. Noel Pillay was appointed Chief Operating Officer Africa and Colombia and as a member of Executive KMP from 1 December 2021.

Jason Economidis was appointed permanently to the Chief Operating Officer Australia role effective 1 July 2021 having acted in the role and as a member of Executive KMP during FY21.

Fixed remuneration

No increase was applied to fixed remuneration for the CEO during FY22. Other members of Executive KMP received increases to reflect changes in their role, their level of experience and relevant market benchmarks, as outlined on page 85.

FY22 STI

We delivered record earnings and cashflow in FY22 as our stable operating performance and new investments in higher-margin businesses enabled us to capitalise on the significant tailwind of commodity prices. Underlying earnings increased by more than 400 per cent to US\$2.6B, with a record US\$1.3B returned to shareholders in the form of dividends and our ongoing on-market share buy-back in respect of FY22.

We also delivered outstanding results in a number of areas of Sustainability. We continued to reduce the risk of material health exposures in our business, further matured our control environment that is designed to mitigate the risk of significant events and hazards, and made another strong contribution to the communities in which we operate.

Notwithstanding these strong results, our Board chose to apply a negative Business Modifier for Executive KMP in recognition of the fatality at our Wessels mine at South Africa Manganese. This includes a negative Business Modifier of 20 per cent for the CEO and Chief Operating Officer Africa at the time of the fatality, 10 per cent for our other Chief Operating Officers and five per cent for the Chief Financial Officer.

As a result, the overall STI outcome for Executive KMP ranged from 53 per cent to 88 per cent of maximum with the CEO receiving 74 per cent of maximum.

LTI vesting in 2022

While South32 delivered TSR of 60 per cent in FY22 and 37 per cent over the four-year performance period, this fell short of the threshold for vesting when compared with the two performance benchmarks. As a result, all FY19 LTI rights lapsed.

South32 does not offer retention rights to permanent members of the Lead Team, including those who are Executive KMP. However, employees who are promoted into Executive KMP roles retain unvested awards granted under the Management Share Plan (MSP) while in their prior role. These awards are a combination of performance rights and retention rights. MSP retention rights granted to Jason and Noel prior to their appointment to the Lead Team vested in FY22.

The Board may decide to grant employees promoted into the Lead Team, including into Executive KMP roles, a Transitional LTI award in the form of performance rights with the same TSR hurdles as the LTI, albeit with a three-year performance period. The award is designed to address a potential shortfall in vesting that arises with the transition from the MSP to the LTI. The FY20 Transitional LTI award granted to Katie Tovich when she was promoted to the Chief Financial Officer role in 2019 partially vested in FY22, as outlined on page 92.

FY22 total reward

Realised pay for Executive KMP (see page 78) was below Target Remuneration as the FY19 LTI did not vest and the Board applied a negative Business Modifier when determining the STI outcome.

The Board considered all components of remuneration in reviewing the FY22 reward outcomes to ensure alignment to our Guiding Principles (see page 79) and believes FY22 realised pay is fair for Executive KMP and shareholders, based on performance for the year.

Realised pay for Executive KMP in FY22

Realised pay is the value of reward received by Executive KMP in relation to the financial year, rather than potential pay that may be earned or disclosed statutory pay. We publish this information to enable our shareholders to better understand the pay delivered to our Executive KMP through our Reward Framework (including the application of Board discretion) and how this is aligned to the performance of South32 over time.

The intention of our Reward Framework (see our Guiding Principles on page 79) is to deliver realised pay outcomes that reflect Company performance and the shareholder experience. The Board and Remuneration Committee believe that our realised pay outcomes reflect this objective.

The realised pay for Executive KMP in FY22, as outlined below, includes:

- Fixed remuneration earned in FY22 (including superannuation);
- Other cash and non-monetary benefits earned in FY22;
- Total FY22 STI earned (including cash and deferred rights) based on performance during this financial year (details on page 90); and
- LTI awards that vested based on performance and/or service conditions to 30 June 2022 (details on page 93).

Realised pay is likely to vary substantially, either up or down, from potential pay and from Target Remuneration (see page 83) because a significant portion of our Executive KMP pay is 'at risk' and based on challenging performance measures. Furthermore, as the LTI is measured over a four-year performance period, vesting outcomes will not always correlate to the TSR outcome for a single year.

Table 1.2 – Realised pay in respect of FY22 (A\$'000)

Executive KMP		Fixed remuneration	Other ⁽¹⁾	STI cash	STI deferred	LTI ⁽²⁾⁽³⁾	Total realised pay
G Kerr	FY22	1,815	42	1,215	1,215	-	4,287
Chief Executive Officer	FY21	1,815	27	879	879	-	3,600
K Tovich	FY22	863	9	691	691	170	2,424
Chief Financial Officer	FY21	830	12	573	573	163	2,151
M Fraser⁽⁴⁾⁽⁵⁾	FY22	417	27	398	-	-	842
Chief Operating Officer Africa	FY21	1,000	78	484	484	-	2,046
J Economidis	FY22	780	7	482	482	245	1,996
Chief Operating Officer Australia	FY21	713	64	273	137	145	1,332
N Pillay⁽⁶⁾	FY22	651	239	352	279	214	1,735
Chief Operating Officer Africa and Colombia	FY21	-	-	-	-	-	-

(1) Other includes such items as insurances and tax advice provided to Executive KMP and the notional interest benefit M Fraser received on a one-off interest free loan. It also includes benefits provided to N Pillay to assist with his relocation from Australia to South Africa, including a relocation allowance of ZAR1,500,000 paid on 25 October 2021 which has been converted to A\$ using an exchange rate of A\$1:ZAR 10.99.

(2) LTI value is based on a closing share price on 30 June 2022 of A\$3.94 (FY22) and 30 June 2021 of A\$2.93 (FY21).

(3) LTI includes MSP (retention) awards granted to J Economidis and N Pillay prior to becoming Executive KMP, which vested subsequent to their appointment as Executive KMP (see page 93) and the FY20 Transitional LTI award granted to K Tovich on appointment to the Lead Team (see page 93).

(4) On 30 November 2021, M Fraser stepped down as Chief Operating Officer Africa to pursue opportunities outside the South32 Group. Termination benefits for M Fraser (not detailed in the table above) include a payment in lieu of six months' notice (A\$500,000) and a payment for relocation and tax assistance (A\$90,000).

(5) FY22 STI awarded to M Fraser was pro-rated to reflect his service up to 30 November 2021 and will be paid entirely in cash in September 2022 in accordance with the treatment of a good leaver under the STI Plan Rules. The deferred component of the FY21 STI awarded to M Fraser (A\$484,320) was paid in cash in November 2021 in accordance with the treatment of a good leaver under the STI Plan Rules.

(6) N Pillay became Chief Operating Officer Africa and Colombia on 1 October 2021 and a member of Executive KMP on 1 December 2021. Prior to this, N Pillay was the Vice President Operations at Worsley Alumina. FY22 remuneration reflects three months in his prior role and nine months as Chief Operating Officer. Salary relating to his time in the Chief Operating Officer role is denominated in ZAR and has been converted to A\$ using an exchange rate of A\$1:ZAR 11.13.

Our Reward Framework

The pages of the Remuneration report that follow (together with Table 1.1 – Business performance) have been prepared in accordance with section 300A of the Corporations Act and audited as required by section 308(3C) of the Corporations Act. These sections relate to those persons who were KMP of South32 during FY22, being the Executive KMP named on page 78 and the Non-Executive Directors of South32 Limited (refer page 64).

Remuneration governance

The roles and responsibilities of our Board, Remuneration Committee, management and external advisors in relation to remuneration for Executive KMP and employees at South32 are outlined below.

Board	Our Board maintains overall responsibility for overseeing the remuneration policy and the principles and processes that underpin it. They approve the remuneration arrangements for our CEO and Non-Executive Directors. Changes to the Director fee pool and equity grants to the CEO are approved by shareholders.
Remuneration Committee	The Remuneration Committee approves reward arrangements for our Executive KMP (other than the CEO) and oversees the remuneration and benefits framework for all employees of South32. By taking advice from other Board Committees (such as the Sustainability and Risk and Audit Committees), the Remuneration Committee helps the Board oversee our remuneration policy, its specific application to the CEO, executives and Non-Executive Directors and, in general, our employees. The Remuneration Committee provides oversight to ensure our remuneration arrangements are equitable and aligned to the long-term interests of shareholders, operate within our risk framework, and support our purpose, strategy and values.
CEO and Management	Our CEO makes recommendations to the Remuneration Committee for our executives and how the remuneration policy and framework applies to our employees. Management provides information and recommendations to the Remuneration Committee to help them consider and implement approved arrangements.
External Advisors	External advisors may be engaged either directly by the Remuneration Committee or via management. These advisors provide information on remuneration-related issues, including benchmarking information and market data. The Remuneration Committee did not receive recommendations from external consultants, including remuneration consultants, when determining KMP remuneration in FY22.
We seek information and analysis from a range of data sources. This allows us to make decisions that are informed, objective, weighted and aligned to the requirements of the Company, and consistent with our Guiding Principles.	

Reward practices and outcomes

Our Guiding Principles

Purpose and Strategy

We align short-term and long-term performance measures to our purpose and strategy. This includes our efforts to:

- Optimise our business by working safely, minimising our impact, consistently delivering stable and predictable performance, and continually improving our competitiveness;
- Unlock the full value of our business through our people, innovation, projects and technology; and
- Identify and pursue opportunities to sustainably reshape our business for the future, and create enduring social, environmental and economic value.

The way we work

Our culture is grounded in our values and is at the core of how we deliver our purpose and strategy. You'll see it reflected in our values, the decisions we take, the courage we show and the legacy we leave.

Supporting this is a strong belief that culture can be actively shaped through a focus on what we prioritise, what we measure, what we reward and who we appoint.

Shareholders

Our Reward Framework focuses executives and management on delivering superior total shareholder returns.

We do this through share ownership and LTI performance measures aligned to the shareholder experience.

We value feedback and regularly check-in with investors and proxy advisers.

Performance

Our reward outcomes align to performance by providing a large part of executive pay 'at risk' based on challenging financial and non-financial measures.

STI outcomes reflect performance over the financial year, while LTI outcomes reflect performance over a four-year period.

Market

Our reward is competitive and designed to attract and retain talented executives.

We benchmark our reward levels in consideration of similar sized companies in the ASX, as well as our global mining peer group.

Changes to our Reward Framework from FY22

Our Reward Framework is designed to be fit-for-purpose through the business cycle, allowing the Board to find the right balance between remuneration outcomes that incentivise and reward our Executive KMP, while also reflecting overall business performance and the shareholder experience.

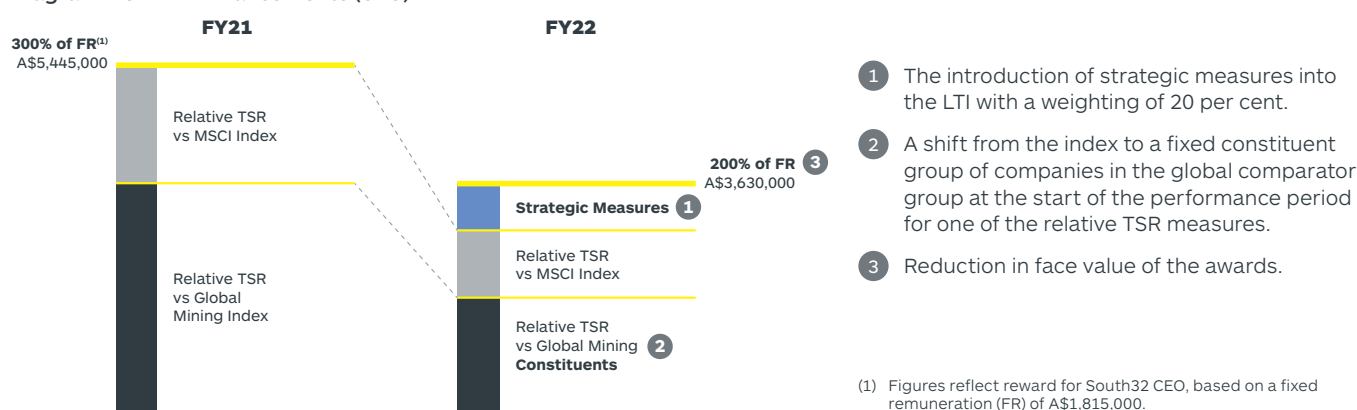
We have maintained a consistent approach to remuneration since the formation of our Company and continue to believe that shareholders are better served if we retain the core elements of our Reward Framework. Last year, however, we recognised there was an opportunity to further enhance our approach by directly linking reward to the business critical areas of climate change and our commitment to halve our operational greenhouse gas emissions (Scope 1 and 2) by 2035, and our portfolio management activities that are designed to increase our exposure to the metals critical to a low-carbon future.

Following extensive engagement with shareholders, we incorporated the important changes to our Reward Framework that were outlined in our Remuneration report last year as detailed below.

Long-term incentive (LTI)

We enhanced our LTI design for FY22 by making three important adjustments that are summarised in Diagram 1.3.

Diagram 1.3 – LTI Enhancements (CEO)



1 Introduction of strategic measures

We have incorporated two strategic measures in the LTI from FY22 that are aligned to our business priorities and will underpin the long-term success of South32. These measures, which each have a weighting of 10 per cent of the LTI, are:

- Our response to climate change; and
- The transition of our portfolio towards the metals critical to a low-carbon future.

The success of these strategic initiatives will be measured by our ability to make material progress in these areas, whilst protecting and creating shareholder value as we navigate this business-critical transformation. Vesting outcomes will be determined by the Board following the end of each four-year performance period.

More detail on the measures and our progress against them is outlined on page 94.

2 Shift from Index to Constituents for the Global Mining Comparator Group

From FY22, 80 per cent of the LTI will continue to be assessed on the basis of our TSR performance compared to two comparator groups, being the global mining comparator group (for two-thirds, or 53.3 per cent of the LTI) and a world comparator group (for one-third, or 26.7 per cent of the LTI). By maintaining relative TSR at a weighting of 80 per cent in the LTI, we continue to ensure CEO and Executive KMP pay outcomes are directly aligned with the shareholder experience over the longer-term.

While we have previously used the IHS Markit Global Mining Index (with constrained weighting by company and sector) for the global mining comparator group, we have now moved to a fixed constituent group of companies from the index. This constituent group is made up of the companies that comprise the IHS Markit Global Mining Index at the start of each performance period and is fixed for the four-year performance period (with Board discretion to make adjustments to take into account events such as takeovers, mergers or demergers that may occur during the performance period). This change brings South32's approach more in line with market practice.

The Morgan Stanley Capital International (MSCI) World Index has been retained for the world comparator group and there is no change to the vesting schedule as outlined in 'Components of our reward' on page 82.

3 Reduction in face value

The face value of the LTI for the CEO has been reduced by 33 per cent from FY22, from 300 per cent to 200 per cent of fixed remuneration, with proportionate reductions in the LTI face value for other Executive KMP. Notwithstanding the reduction in face value, we have not changed the target LTI or Target Remuneration for the CEO or other Executive KMP as we believe their target pay remains appropriate considering their roles and responsibilities (see page 83).

This change has resulted in a reduction in total reward (based on face value) for all Executive KMP.

Short-term incentive (STI)

For FY22, the overall design and key performance metrics of the STI have remained unchanged, with our Business Scorecard focused on maintaining safe, reliable and profitable operations. We have, however, reviewed the STI measures and their weightings (see diagram 1.4) given the inclusion of the climate change and portfolio management strategic measures in the LTI from FY22 so that:

- There is no duplication between STI and LTI measures;
- There is an appropriate balance of measures across the elements of variable pay; and
- We align the performance measures with the most appropriate performance period.

Diagram 1.4 – FY22 STI performance metric weightings

Measures	Performance metrics	FY21 weighting	FY22 weighting	Change to measures
Sustainability	Safety, health, risk management and community	25%	28.3%	Adjusted to increase the weighting of the financial measures in the STI given the inclusion of the strategic measures in the LTI from FY22.
Financial	Production, cost and capital expenditure	25%	28.3%	
	Adjusted return on invested capital	25%	28.3%	
Strategic priorities	Key elements of the FY22 Business Plan	25%	15%	
X				
Business Modifier	Considers factors that are not specifically contemplated in the Business Scorecard	+/-	+/-	
=				
South32 Business Outcome Reflects our performance over the financial year				

Components of our reward for FY22

Our intention	Attract and retain talented executives to lead South32		The majority of pay at risk reflects our commitment to pay for performance and deliver value to shareholders																													
			Reward business and individual performance in the financial year	Drive long-term performance and ownership behaviours																												
Component	Fixed Remuneration	Short-Term Incentive		Long-Term Incentive																												
The why	Fixed remuneration is set with reference to the median of our peer groups, reflecting each Executive KMP's responsibilities, location, skills and experience.	STI focuses effort on our key priorities to ensure success for South32 both in the financial year and into the future. It motivates Executive KMP to achieve challenging performance objectives. Our STI reflects performance during the year and measures outcomes within management's control.		The LTI is directly linked to relative TSR and the critical strategic initiatives that are expected to both protect and enhance value in the long-term.																												
The how	Base salary and superannuation.	50 per cent paid in cash annually.	50 per cent delivered in rights to South32 shares, deferred for two years ⁽¹⁾ .	Rights to receive South32 shares. 80 per cent of the LTI is subject to TSR performance measured over a four-year period, relative to two comparator groups. 20 per cent is assessed based on our performance against two strategic measures.																												
Our approach in FY22	We benchmark our fixed remuneration and Target Remuneration against two key peer groups that reflect our profile as a Company and the markets in which we operate. Our peer groups are: – An ASX peer group based on companies with half to double our market capitalisation (excluding foreign domiciled entities and real estate investment trusts); and – An international mining peer group of 18 companies with a similar market capitalisation, commodity mix and/or global presence to South32 (see Our global mining peer group below).		Quantum (% of fixed remuneration):																													
			<table><thead><tr><th></th><th>Target value</th><th>Max. value</th></tr></thead><tbody><tr><td>Executive KMP</td><td>120%</td><td>180%</td></tr></tbody></table> Business Scorecard: The Business Scorecard reflects a balance of financial and non-financial measures that are a priority for us in the financial year. The financial measures remove the impact of commodity prices and foreign exchange so that we reward for items management can control. Performance measures:  ■ Sustainability (28.3%) ■ Financial: Production, cost and capital expenditure (28.3%) ■ Financial: Adjusted ROIC (28.3%) ■ Strategic priorities (15%) Business Modifier: As scorecard measures do not always reflect all aspects of performance across a year, and to mitigate against any unintended reward outcomes, the Board has the discretion to apply a Business Modifier to the Business Scorecard outcome. The Business Modifier may be applied to Executive KMP on an individual or group basis, having regard to the perspectives of stakeholders including employees, shareholders and communities. Individual performance and behaviours: The Board also considers a member of Executive KMP's individual performance, taking into account their areas of responsibility and the alignment of their behaviours with our values (i.e., how outcomes have been achieved).			Target value	Max. value	Executive KMP	120%	180%																						
	Target value	Max. value																														
Executive KMP	120%	180%																														
		Quantum (% of fixed remuneration):																														
		The quantum for FY22 was determined as a percentage of fixed remuneration: <table><thead><tr><th></th><th>Face value</th><th>Target value</th></tr></thead><tbody><tr><td>CEO</td><td>200%</td><td>120%</td></tr><tr><td>Other KMP</td><td>133%</td><td>80%</td></tr></tbody></table> Performance measures:  ■ TSR relative to IHS Markit Global Mining Index constituents (53.3%) ■ TSR relative to MSCI World Index (26.7%) ■ Climate change strategic measure (10%) ■ Portfolio management strategic measure (10%) Vesting scale: <table><thead><tr><th></th><th colspan="3">Vesting outcome⁽²⁾</th></tr><tr><th></th><th>0%</th><th>40%</th><th>100%</th></tr></thead><tbody><tr><td>Global Mining Index Constituents*</td><td>TSR <= 50th percentile</td><td>TSR > 50th percentile</td><td>TSR > 75th percentile</td></tr><tr><td>MSCI World Index*</td><td>TSR < Index</td><td>TSR = Index</td><td>TSR > Index + 23.9%</td></tr><tr><td>Strategic Measures</td><td colspan="3">Vesting outcomes will be determined by the Board at the end of the performance period.</td></tr></tbody></table> *Vesting between 40% and 100% is on a straight-line basis There is no retesting if the performance condition is not met at the end of the performance period.			Face value	Target value	CEO	200%	120%	Other KMP	133%	80%		Vesting outcome ⁽²⁾				0%	40%	100%	Global Mining Index Constituents*	TSR <= 50th percentile	TSR > 50th percentile	TSR > 75th percentile	MSCI World Index*	TSR < Index	TSR = Index	TSR > Index + 23.9%	Strategic Measures	Vesting outcomes will be determined by the Board at the end of the performance period.		
	Face value	Target value																														
CEO	200%	120%																														
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MSCI World Index*	TSR < Index	TSR = Index	TSR > Index + 23.9%																													
Strategic Measures	Vesting outcomes will be determined by the Board at the end of the performance period.																															
Our global mining peer group	The global mining peer group that we use as one of our reference points for benchmarking fixed remuneration and total reward levels includes the following companies: Agnico Eagle Mines, Alcoa, Anglo American, AngloGold Ashanti, Antofogasta, Barrick Gold, Evolution Mining, First Quantum Minerals, Fortescue Metals Group, Freeport McMoRan, Gold Fields, Kinross Gold, Lundin Mining, Newcrest Mining, Newmont, Northern Star Resources, Teck Resources and Vedanta.																															

(1) The deferred rights are subject to a service condition only as performance conditions applied during the STI performance year.

(2) The Board and Remuneration Committee use information from an external provider to inform them of the TSR performance of the relevant index and companies to assess the vesting outcome for the LTI.

Minimum shareholding requirement	A minimum shareholding requirement (MSR), equal to 100 per cent of fixed remuneration for Executive KMP, drives a long-term focus and alignment with our shareholders. The MSR applies to all Lead Team members, including those who are Executive KMP, and must be obtained within five years of appointment to the Lead Team. See page 101 for current shareholdings of our Executive KMP.
Our service contracts	Contracts are entered into by Executive KMP in their personal capacity. The key terms are consistent for all Executive KMP, and include: – No fixed term; – Six months' notice by either party or payment by the Company in lieu of notice; – Termination without notice for serious misconduct; – Two months' notice by the member of Executive KMP where a fundamental change occurs that materially diminishes their status, duties, authority or terms and conditions (receiving payment in lieu of six months' notice); – A maximum payment in lieu of notice of six months' fixed remuneration; and – Post-employment restraints for a period of up to six months after their employment with the Group ends. Shareholder approval was granted at the 2021 Annual General Meeting (AGM) for Executive KMP termination benefits.

Target Remuneration for FY22

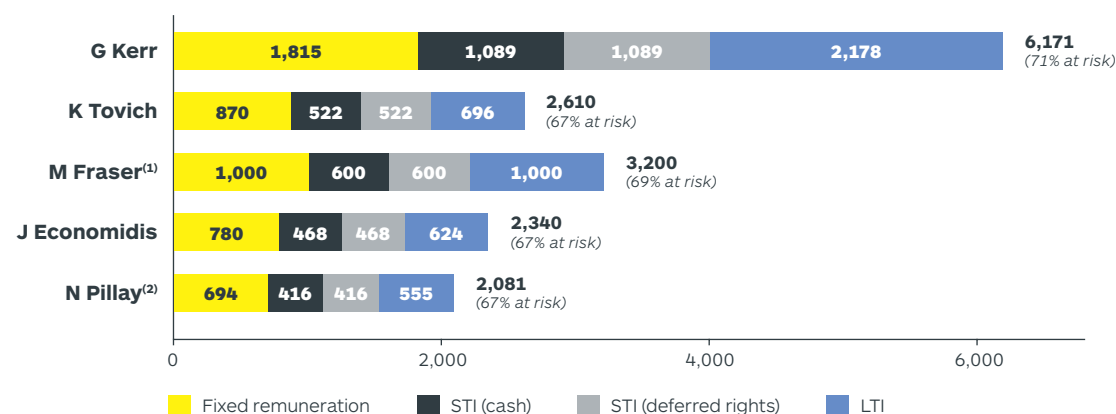
South32 sets Target Remuneration for each Executive KMP at a competitive level to attract and retain the appropriate talent in the markets in which we operate. Our Target Remuneration is informed by the South32 Reward Framework (see page 79) that outlines the key factors the Board takes into consideration in setting Executive KMP reward and the strategic drivers of pay at South32.

It is important to ensure reward levels fairly reflect the responsibilities and contribution of Executive KMP and that outcomes are aligned to performance and the delivery of total shareholder returns. As a result, a meaningful portion of our Executive KMP remuneration is at risk, based on challenging individual and Company performance measures.

Target Remuneration, as outlined below, assumes on-target performance for the STI and considers the difficulty of achieving LTI performance hurdles given broader industry and South32-specific share price volatility. The figures reflected in the diagram below are therefore based on the STI being paid at 100 per cent of target and the LTI vesting at 60 per cent of face value (see page 82 for details on face value).

Based on these principles, annual Target Remuneration for Executive KMP as at 30 June 2022 is illustrated in diagram 1.5.

Diagram 1.5 – FY22 Target Remuneration (A\$'000)



(1) M Fraser ceased being a member of Executive KMP on 30 November 2021. Figures are not pro-rated for his time as a member of Executive KMP in FY22.

(2) N Pillay was appointed as a member of Executive KMP on 1 December 2021. Figures are not pro-rated for his time as a member of Executive KMP in FY22. Target Remuneration has been converted from ZAR to A\$ using an exchange rate of A\$1:ZAR11.13.

FY22 Target Remuneration relative to peer groups (unaudited)

South32 has operations and offices on six continents and competes for talent in a global pool.

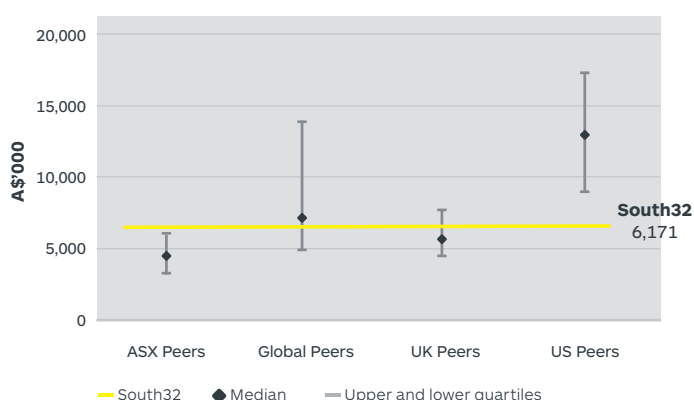
The adjacent diagrams illustrate the measured approach adopted by South32 in positioning CEO fixed remuneration and Target Remuneration for FY22 compared to relevant benchmarks, being the ASX peer group and the global mining peer group (see page 82). Fixed remuneration for the CEO has been assessed as being comparable to the ASX peer group median, and closer to the lower quartile when compared to the global mining peer group. Target Remuneration for the CEO has been assessed as being comparable to the upper quartile of the ASX peer group, but below the global peer group median.

As an additional reference, we have also included supplementary peer groups reflecting companies on the London Stock Exchange (UK) and US stock exchanges (US) that are half to double the market capitalisation of South32, being the markets in which we also compete for executive talent.

Diagram 1.6 – CEO fixed remuneration vs. Peers



Diagram 1.7 – CEO Target Remuneration vs. Peers

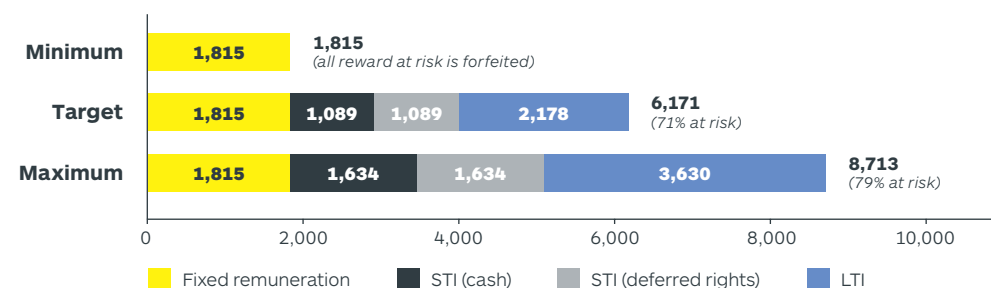


Range of possible remuneration outcomes

As actual business and individual achievement over the performance period determines reward outcomes, the amount of pay received by Executive KMP each year will vary (see page 78).

Diagram 1.8 illustrates the range of possible remuneration outcomes for the CEO, based on three performance outcome scenarios: minimum, target and maximum. While the figures in diagram 1.8 and explanation are for the CEO, similar analysis can be undertaken for other Executive KMP to assess the minimum and maximum range of pay outcomes.

Diagram 1.8 – Range of CEO remuneration outcomes (A\$'000)



In the **Minimum** scenario, no STI or LTI is paid. The CEO would receive fixed remuneration, inclusive of superannuation, of A\$1.815 million.

Target outcomes would be achieved where the business meets the challenging STI performance hurdles (i.e., that extend well beyond business-as-usual activities), resulting in STI being paid at target levels (67 per cent of maximum opportunity, or 120 per cent of fixed remuneration, with half deferred into shares) and 60 per cent of the rights granted under the LTI vesting.

To deliver a **Maximum** outcome for the STI (i.e. 180 per cent of fixed remuneration, with half deferred into shares), South32 would need to achieve the robust stretch targets for every metric in the Business Scorecard. For the LTI to vest in full over the four-year performance period:

- The South32 TSR would need to exceed the TSR of the company at the 75th percentile in the global mining constituent group;
- The South32 TSR would need to exceed the MSCI World Index by more than 23.9 per cent; and
- The Board would need to assess performance against both strategic measures as outstanding.

Deferred STI and LTI in the **Target** and **Maximum** scenarios do not incorporate future share price movements.

Fixed remuneration for FY22

In FY22, there were no increases to fixed remuneration for the CEO or Mike. Katie received a 4.8 per cent increase in fixed remuneration from A\$830,000 to A\$870,000 on 1 September 2021. Jason also received a fixed remuneration increase from A\$712,500 to A\$780,000 on being appointed as Chief Operating Officer Australia on a permanent basis from 1 July 2021. Noel became a member of Executive KMP on 1 December 2021.

Table 1.3 – Fixed remuneration for Executive KMP in FY22⁽¹⁾

Executive KMP	FY21 fixed remuneration (A\$)	FY22 fixed remuneration (A\$)	Increase %
G Kerr	1,815,000	1,815,000	0
K Tovich	830,000	870,000	4.8
M Fraser	1,000,000	1,000,000	0
J Economidis	712,500	780,000	9.5
N Pillay ⁽²⁾	-	694,453	-

(1) Fixed remuneration reflects a full year in the KMP role.

(2) Fixed remuneration for N Pillay has been converted to A\$ using an exchange rate of A\$1:ZAR11.13.

Short-Term Incentive for FY22

Determining STI awards

Diagram 1.9 – Determination of STI awards



As outlined on page 82, the STI is intended to focus and reward Executive KMP for delivering our key business priorities and success for South32 both in the financial year and into the future. The overall STI outcome is determined by assessing three key inputs – the Business Scorecard, the Business Modifier, and individual performance and behaviours.

The **Business Scorecard** includes a balanced range of challenging measures (i.e., that extend well beyond business-as-usual activities) that consider both our financial and non-financial performance, and help our Executive KMP focus on outcomes that are within their control and a priority for the year.

The **Business Modifier** considers overall business outcomes or other factors that are not specifically contemplated in the Business Scorecard, such as the shareholder experience, fatalities or other significant safety or environmental events. The Business Modifier may be applied to Executive KMP on an individual or group basis, having regard to the perspectives of stakeholders including employees, shareholders and communities.

Together, the Business Scorecard and the Business Modifier determine the South32 Business Outcome.

Individual performance is measured on the basis of delivery against the relevant operations', projects' or functions' business plans. Our people are also assessed on demonstrated behaviour aligned to our values (i.e., both on what is achieved and how it is achieved).

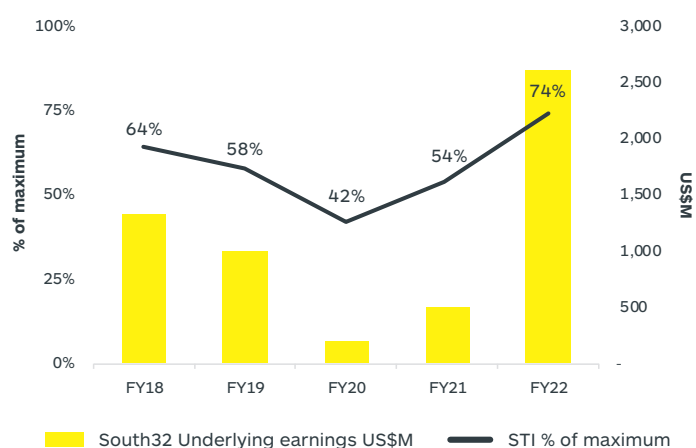
What this means in practice

Including STI performance measures that are within the control of the executives means that the Business Scorecard outcomes may not always mirror underlying South32 financial outcomes.

However, the Board has designed the STI, including the use of the Business Modifier and individual outcomes, so that executives are rewarded for delivering strong performance across areas within their control throughout the cycle, taking into account overall business performance and shareholder experience.

Diagram 1.10 demonstrates the disciplined approach applied by the Board over the past five years.

Diagram 1.10 – CEO STI outcome vs. Underlying earnings



1A FY22 Business Scorecard

Table 1.4 – FY22 Business Scorecard outcomes

Scorecard measure	Target	Performance	Outcome	Zero	Target	Maximum
Sustainability	28.3%		34.7%			
Safety: Achieve a 20 per cent reduction in TRIF compared to the adjusted FY21 baseline ⁽¹⁾ . Complete the FY22 safety improvement program milestones.		Fair TRIF decreased by 12 per cent to 5.3 per million hours worked compared to the adjusted FY21 baseline ⁽¹⁾ . The FY22 safety improvement milestones were completed to plan. We are deeply saddened by the loss of one of our colleagues, who was fatally injured while undertaking electrical work at our Wessels Mine at South Africa Manganese on 30 November 2021. We recognise the fatality in our STI through the Business Modifier (see page 89).				
Significant Events and Hazards: Ensure 90 per cent of significant event investigations are completed and signed off within the allocated timeframe. Achieve targets for significant hazard frequency and significant event actions.		Excellent Significant event investigation targets were achieved. The significant hazard frequency and significant event actions outcomes were ahead of target.				
Health: Achieve a 20 per cent reduction in potential material exposures against the FY21 baseline and in accordance with our internal health standard. Develop and implement a project pipeline to continue to reduce potential material exposures in accordance with our internal health standard. Assign risk and control owners to all material health risks.		Excellent Potential material health exposures reduced by 34 per cent compared to FY21. A project pipeline was developed to reduce potential material exposures by the end of FY24. All material health risks were assigned risk and control owners.				
Community: Implement community investment plans on time and on budget. Update our community and social performance standard, align this with the ICMM performance standards and integrate the standard into all phases of the project lifecycle. Complete global reviews for cultural heritage in all our operating regions outside Australia. Finalise our Approach to Indigenous, Traditional and Tribal Peoples Engagement. Apply the community investment impact measurement framework to all strategic community investments and ensure that 80 per cent of projects that are measuring outcomes reach their FY22 outcome targets.		Excellent FY22 community investment was delivered to plan with an increase of 40 per cent from FY21 to US\$31.1M ⁽²⁾ . Our internal community standard was updated and enhanced to become our internal social performance standard. Cultural heritage reviews for all our operating regions outside Australia were completed to plan. Our Approach to Indigenous, Traditional and Tribal Peoples Engagement was substantively completed. The community investment impact measurement framework was applied to all strategic investments with 97 per cent of projects measuring outcomes achieving their targets.				
Risk Management: Implement material risk registers and control management plans for all functions and major projects, and second line stewardship processes over technical and health, safety and environment material risks. Document performance requirements in our risk management system for 80 per cent of critical controls.		Good Material risk registers were implemented for all functions and major projects. Second line stewardship processes were implemented over all technical and health, safety and environment material risks. 91 per cent of performance requirements for critical controls were documented in our risk management system.				

(1) TRIF baseline adjusted at end FY21 to account for the removal of SAEC and TEMCO from the portfolio, measuring our FY22 performance against a TRIF of 6.0.

(2) Community investment consists of direct investment, in-kind support and administrative costs.

Remuneration report continued

Scorecard measure	Target	Performance	Outcome	Zero	Target	Maximum
Financial: Production, cost and capital expenditure	28.3%		27.0%			
Production⁽³⁾: Deliver 97 – 102 per cent of revenue equivalent production.		Good Revenue equivalent production was 98.4 per cent.				
Cost⁽³⁾: Deliver costs that are within US\$50 million of budget (adjusted for foreign exchange, price-linked and other costs). Deliver US\$50M in functional cost savings.		Fair FY22 adjusted cost was above budget by US\$37M. Delivered US\$69M in functional cost savings.				
Capital expenditure⁽³⁾: Deliver sustaining capital expenditure that is within five per cent of budget (adjusted for foreign exchange). Achieve fewer than 20 per cent break-in projects ⁽⁴⁾ . Deliver major capital projects spend (adjusted for foreign exchange) that is within five per cent of budget and schedule.		Fair Normalised sustaining capital expenditure was 94 per cent of budget. Break-in projects ⁽⁴⁾ were at 13 per cent. Major capital projects expenditure was 60 per cent of budget.				
Financial: Adjusted ROIC	28.3%		19.8%			
Adjusted ROIC: Achieve budget FY22 Adjusted ROIC, consistent with our cost, production and capital expenditure targets.		Fair Adjusted ROIC was 6.6 per cent versus the budget of 6.9 per cent.				
Strategic priorities	15.0%		18.1%			
Hermosa project: Commence the Taylor feasibility study, construction of water plant two and shaft engineering work. Progress the Flux exploration plan of operations. Commence the Clark pre-feasibility study.		Good Taylor feasibility study, construction of water plant two and shaft engineering work all commenced in FY22. Progressed the Flux Prospect exploration plan of operations and commenced a pre-feasibility study for the Clark Deposit.				
Next Generation Mine: Achieve 80 per cent of the agreed initiative milestones for the Next Generation Mine Innovation Mission and Hermosa Technology Development Program.		Good Four out of five of the agreed Next Generation Mine Innovation Mission milestones were achieved. All the Hermosa Technology Development Program milestones were achieved.				
Inclusion and Diversity: Achieve FY22 targets and deliver all elements of the Group Inclusion and Diversity Action Plan.		Good Inclusion and Diversity targets for female representation in our operations leadership team and for all employees were met, but we fell short of female representation in our Lead Team and senior leadership team. The targets for the representation of black people in South Africa in the management group and across all employees were also met. All elements of the Group Inclusion and Diversity Action Plan were completed.				
Employee engagement: Achieve target employee engagement scores.		Employee engagement scores significantly exceeded target.				
Subtotal	Target = 100% Max = 150%		99.6%			

(3) Excludes non-operated entities.

(4) Capital projects with expenditure above US\$100,000 that were not included in the FY22 budget.

1B FY22 Business Modifier

The Business Modifier is an integral component of the STI that considers overall business outcomes or other factors that are not specifically contemplated in the Business Scorecard, such as:

- The shareholder experience;
- Unexpected material external events, including the impact of a global pandemic or a significant disruption to global trade;
- Fatalities and significant safety or environmental issues;
- Significant reputational issues; and
- An assessment of risk, culture or any other item that the Board considers appropriate.

The Business Modifier, based on Board discretion, ensures that STI outcomes reflect overall business performance, including both what has been delivered and how it has been achieved. The outcome may be positive or negative, and may be applied to Executive KMP on an individual or a group basis depending on the factors under consideration.

The Board acknowledges the strong operating and financial outcomes that are recognised in the scorecard for FY22, and the efforts of Executive KMP and all employees that allowed the Company to successfully navigate the challenging external environment. However, nothing is more important than ensuring our people go home safe and well at the end of every shift.

We are deeply saddened by the loss of one of our colleagues, Mr Desmin Mienies, a contractor who was fatally injured while undertaking electrical work at our Wessels Mine at South Africa Manganese on 30 November 2021. Our deepest sympathies are with Mr Mienies' family, friends and colleagues. We provided them with our support following the tragic incident and undertook a detailed investigation to understand what happened. Learnings from the investigation were shared across our organisation.

We recognise that we must continue to improve our safety performance. During FY22 we developed a Safety Improvement Program, a three-year global program of work designed to achieve a step-change in our safety performance, and we worked to improve our approach to contractor management.

More detailed information on our ongoing safety initiatives can be found in the Sustainable Development Report at www.south32.net

Taking this tragic outcome into consideration, the Board decided to apply a negative Business Modifier to the Scorecard for all Executive KMP as outlined below in Table 1.5.

Table 1.5 – Application of the Business Modifier by the Board (multiplier applied to the Business Scorecard outcome)

	Business Modifier for FY22	FY21	Business Modifier applied in previous years FY20	FY19	FY18
CEO	-20%	-20%	-30%		-15%
COO Africa ⁽¹⁾	-20% -10%	-20%	-30%	No Business Modifier applied	-15%
Other Executive KMP ⁽²⁾	-10% -5%	-5%	-15%		-5%
	One fatality in South Africa	One fatality in South Africa	One fatality in South Africa and a decline in earnings and share price		One fatality in South Africa and the impact of the Appin mine suspension in FY17

(1) The Board decided to apply a Business Modifier of -20 per cent for M Fraser in FY22 as he was Chief Operating Officer Africa at the time of the fatality.

(2) The Board decided to apply a Business Modifier of -10 per cent for J Economidis and N Pillay in FY22, and negative five per cent for K Tovich.

2 FY22 individual performance and behaviours

Our Board determines the individual scorecard measures for Executive KMP in relation to what was delivered, as demonstrated in the performance of the Executive KMP's portfolio, and how it was delivered, which considers leadership behaviours aligned to our values, risk framework and governance processes.

The Board considered Graham Kerr's individual performance in accordance with the annual performance evaluation process for the CEO, taking into account a range of factors, including his leadership, conduct and personal impact. For FY22, the Board recognised Graham's exceptional performance, with key highlights being his leadership that resulted in strong financial performance and record returns to shareholders.

Individual outcomes for other Executive KMP reflected the performance outcomes in their areas of accountability. These outcomes ranged from 100 per cent to 140 per cent, as indicated in Table 1.6 below.

3 Overall FY22 STI outcomes

Overall STI outcomes for FY22 are determined through our Board's assessment of the business and individual outcomes, as outlined in Table 1.6.

Table 1.6 – STI earned by Executive KMP in respect of FY22 performance

								Percentage of maximum STI	
	Business Scorecard outcome %	Business Modifier +/- %	Individual outcome %	Overall STI outcome % of target	Total STI awarded	Cash	Deferred rights	Awarded	Forfeited
Executive KMP	(1A)	(1B)	(2)	1A x (1+1B) x (2)	(A\$'000)	(A\$'000) ⁽¹⁾	(A\$'000) ⁽¹⁾	(%)	(%)
G Kerr	99.6	-20	140	111.6	2,430	1,215	1,215	74	26
K Tovich	99.6	-5	140	132.5	1,382	691	691	88	12
M Fraser ⁽²⁾	99.6	-20	100	79.7	398	398	-	53	47
J Economidis	99.6	-10	115	103.1	964	482	482	69	31
N Pillay ⁽³⁾	99.6	-10	100	89.6	434	217	217	60	40

(1) The cash portion of the STI will be paid in cash in September 2022. The deferred rights to receive South32 shares are anticipated to be granted in or around December 2022 and will be due to vest in August 2024. The deferred rights remain subject to continued service with the South32 Group.

(2) On 30 November 2021, M Fraser stepped down as Chief Operating Officer Africa to pursue opportunities outside the South32 Group. FY22 STI awarded to M Fraser reflects his period of employment with the South32 Group in FY22 (i.e. his pro-rated award) and will be paid entirely in cash in September 2022 in accordance with the treatment of a good leaver under the STI Plan Rules.

(3) N Pillay was appointed as a member of Executive KMP on 1 December 2021. Details in the above table are pro-rated for his period as a member of Executive KMP in FY22.

Long-Term Incentive

FY19 LTI and MSP Performance award

Our FY19 LTI award was tested for vesting subject to service and performance conditions to 30 June 2022. This award is subject to TSR performance conditions over four years, with two-thirds measured with reference to a mining sector index (the IHS Markit Global Mining Index with constrained weighting by company and sector) and one third with reference to a world index (the MSCI World Index). The four-year period for this award was from 1 July 2018 to 30 June 2022.

We granted Katie, Jason and Noel the FY19 MSP Performance award prior to their appointment as members of KMP. This award has the same performance and vesting conditions as our FY19 LTI award.

For the LTI and MSP Performance awards to vest in full, they would need to outperform both indices by at least 23.9 per cent over the four-year performance period (equivalent to 5.5 per cent per annum cumulative). Given that our TSR failed to meet the threshold level of performance required against both comparator indices (see Diagram 1.11 and Table 1.7), these awards lapsed in full in August 2022.

Diagram 1.11 – South32 TSR relative to comparator groups

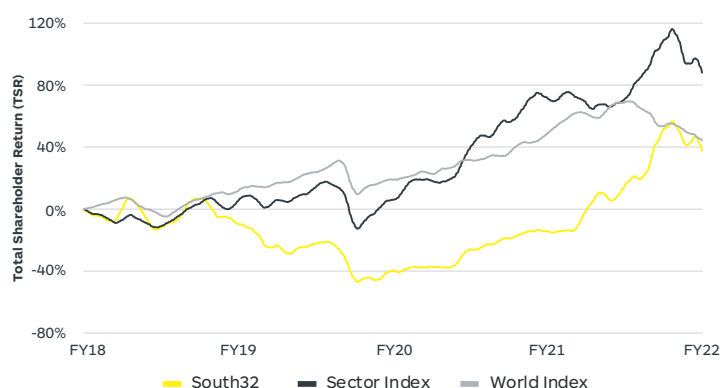


Diagram 1.12 – Vesting scale

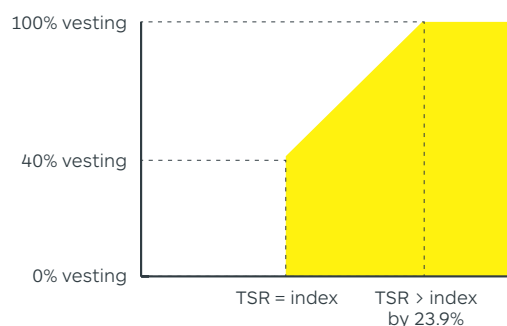


Table 1.7 – South32 FY19 LTI award vesting outcome

	TSR performance ⁽¹⁾⁽²⁾				Vesting outcome (C)	Index weighting (D)	Weighted vesting outcome (C x D)
	Index (A)	South32 (B)	Required for 100% vesting	Achieved (B-A)			
Sector Index	88%	37%	Index+23.9%	(51%)	0%	2/3	0%
World Index	44%		Index+23.9%	(7%)	0%	1/3	0%
							0%

(1) TSR calculation uses June 2018 average return at the start and June 2022 average return at the end of the performance period.

(2) The Board and Remuneration Committee use information from an external provider to inform them of the performance of the relevant index to assess the vesting outcome for the LTI.

FY20 MSP Retention award

Although South32 does not offer MSP Retention awards to permanent members of the Lead Team, including those that are Executive KMP, when individuals are promoted internally to Executive KMP roles, they retain unvested MSP awards that will vest while they are KMP. Jason and Noel were granted the FY20 MSP Retention awards in 2019 prior to their appointment as members of Executive KMP. As the service-based condition of these awards was met, our Board approved these awards to vest in full in August 2022.

The structure of the MSP is detailed on page 101.

FY20 Transitional LTI award

We granted the FY20 Transitional LTI award to Katie on her appointment to the Lead Team given the reduction in Target Remuneration that would otherwise occur due to the three-year service period that exists for the MSP retention rights that formed an important part of her prior remuneration arrangements, as opposed to the four-year performance period of the LTI.

This Transitional LTI award is subject to the same TSR performance conditions as the FY19 LTI award, but over a three-year period, with two-thirds measured with reference to a mining sector index (the IHS Markit Global Mining Index with constrained weighting by company and sector) and one third with reference to a world index (the MSCI World Index). The performance period for this award was from 1 July 2019 to 30 June 2022.

For the Transitional LTI award to vest in full, it would need to outperform both indices by at least 17.4 per cent over the performance period (equivalent to 5.5 per cent per annum cumulative). Our TSR exceeded the world index TSR by more than 17.4 per cent but failed to meet the threshold level of performance against the mining sector index (see Diagram 1.13 and Table 1.8). As a result, one-third of the rights vested in August 2022 and the remaining rights lapsed.

Diagram 1.13 – South32 TSR relative to comparator groups

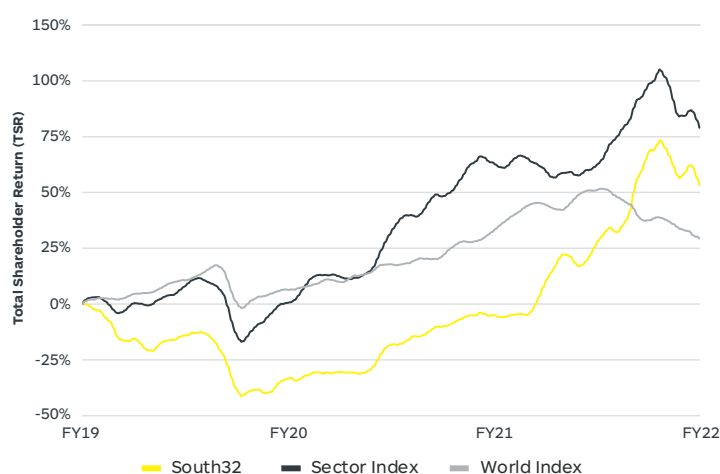


Diagram 1.14 – Vesting scale

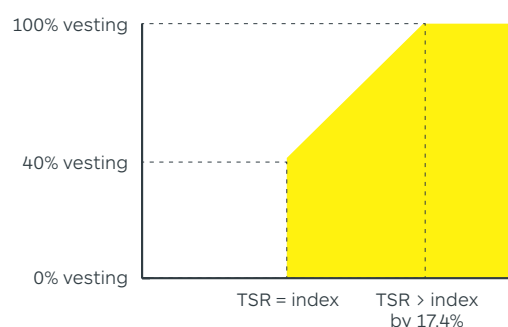


Table 1.8 – South32 FY20 Transitional LTI award vesting outcome

	TSR performance ⁽¹⁾⁽²⁾				Vesting outcome (C)	Index weighting (D)	Weighted vesting outcome (C x D)
	Index (A)	South32 (B)	Required for 100% vesting	Achieved (B-A)			
Sector Index	79%	52%	Index+17.4%	(27)%	0%	2/3	0%
World Index	29%		Index+17.4%	23%	100%	1/3	33%
							33%

(1) TSR calculation uses June 2019 average return at the start and June 2022 average return at the end of the performance period.

(2) The Board and Remuneration Committee use information from an external provider to inform them of the performance of the relevant index to assess the vesting outcome for the LTI.

Summary of LTI outcomes in FY22

Table 1.9 – South32 LTI awards vested or lapsed/forfeited

Executive KMP	Award	Number of rights granted	Number of rights vested	Number of rights lapsed/forfeited	Value at grant ⁽¹⁾ (A\$'000)	Value lapsed/forfeited ⁽²⁾ (A\$'000)	Value of share price movement ⁽³⁾ (A\$'000)	Value at vesting ⁽⁴⁾ (A\$'000)
G Kerr	FY19 LTI	1,450,819	-	1,450,819	5,310	5,310	-	-
K Tovich	FY19 MSP Performance	139,314	-	139,314	510	510	-	-
	FY20 Transitional LTI	129,283	43,094	86,189	415	277	32	170
M Fraser	FY19 LTI	674,863	-	674,863	2,470	2,470	-	-
J Economidis	FY19 MSP Performance	123,704	-	123,704	453	453	-	-
	FY20 MSP Retention	62,305	62,305	-	200	-	45	245
N Pillay	FY19 MSP Performance	116,120	-	116,120	425	425	-	-
	FY20 MSP Retention	54,283	54,283	-	174	-	40	214

(1) 'Value at grant' is the number of rights granted multiplied by the grant determination price in June 2018 of A\$3.66 (FY19 LTI/FY19 MSP Performance) and June 2019 of A\$3.21 (FY20 Transitional LTI/FY20 MSP Retention), based on the volume weighted average price (VWAP) over the last 10 trading days in June of the respective year.

(2) 'Value lapsed/forfeited' is the number of rights lapsed/forfeited based on performance relative to the performance measures, multiplied by the grant determination price of A\$3.66 (for the FY19 LTI/FY19 MSP Performance) and A\$3.21 (for the FY20 Transitional LTI/FY20 MSP Retention).

(3) 'Value of share price movement' is the number of shares that vested, multiplied by the difference between the grant determination price of A\$3.66 (for the FY19 LTI/FY19 MSP Performance) and A\$3.21 (for the FY20 Transitional LTI/FY20 MSP Retention) and the closing share price on 30 June 2022 of A\$3.94. This reflects the value added/(lost) due to the change in share price since the start of the performance period.

(4) 'Value at vesting' is the number of shares that vested in August 2022, multiplied by the closing share price on 30 June 2022 of A\$3.94.

LTI granted in FY22

FY22 LTI Plan

Each year we grant performance rights to our Executive KMP. Our FY22 LTI Plan awards, which were granted in December 2021, have a four-year performance period and are subject to performance hurdles (outlined on page 82). Shareholders approved, under ASX Listing Rule 10.14, the grant of rights for the CEO at the AGM on 28 October 2021.

FY22 Transitional awards

Participants in the MSP receive a portion of their LTI as retention rights that have a three-year service condition. As all Lead Team LTI awards have a four-year performance period, the Board may determine that a new Lead Team member appointed from within South32 should receive a Transitional LTI award to bridge the gap between the two plans.

In FY22, the Board approved one-off Transitional LTI awards for Jason and Noel, following their appointment to the Lead Team to address the potential shortfall in vesting in 2024. These awards are performance based and have the same TSR performance hurdles as the FY22 LTI, but are measured over a three-year period. More information on these awards is provided on page 101.

Table 1.10 – FY22 LTI grants

Executive KMP	Award	Reward determination ⁽¹⁾			Grant (December 2021):		
		Face value (% of fixed remuneration)	Face value (A\$'000)	Target value ⁽²⁾ (% of fixed remuneration)	Target value (A\$'000)	Number of rights granted ⁽³⁾	Anticipated vesting date
G Kerr	FY22 LTI	200	3,630	120	2,178	1,267,015	August 2025
K Tovich	FY22 LTI	133	1,157	80	696	403,874	August 2025
J Economidis	FY22 LTI	133	1,037	80	624	362,094	August 2025
	FY22 Transitional LTI	37.5	293	20	156	102,094	August 2024
N Pillay ⁽⁴⁾	FY22 LTI	133	945	80	569	329,962	August 2025
	FY22 Transitional LTI	37.5	267	20	142	93,034	August 2024

(1) The grant of awards is based on the face value as outlined in Components of our reward (see page 82).

(2) The target value considers the difficulty of achieving performance hurdles and anticipated share price volatility.

(3) The number of awards granted to Executive KMP in December 2021 is calculated by dividing the face value by the VWAP of South32 shares traded on the ASX over the last 10 trading days of June 2021, being A\$2.865. The fair value at grant for accounting purposes, as calculated by PwC, was A\$2.35 per right for the FY22 LTI award and \$2.39 per right for FY22 Transitional LTI award.

(4) Fixed remuneration for N Pillay used to determine his FY22 LTI grants was converted to A\$ using an exchange rate of A\$1:ZAR 10.87.

FY22 LTI Strategic Measures Performance Update

In FY22 we introduced two strategic measures, with a total weighting of 20 per cent of our LTI grant, to directly link executive remuneration to our ambitious but realistic approach to climate change and the transition of our portfolio towards the metals critical to a low-carbon future.

Vesting outcomes for the strategic measures will be determined by the Board following the end of the four-year performance period (on 30 June 2025), based on our ability to make material progress in these areas, whilst protecting and creating shareholder value as we navigate this business-critical transformation. The Board's rationale in assessing performance and determining the vesting outcome for each measure will be clearly articulated and shared with shareholders following the Board's assessment.

Table 1.11 below summarises the early progress made against each four-year strategic measure during FY22.

Table 1.11 – FY22 strategic measures update

Measure	FY22 progress against measure
Climate Change We have announced plans to reduce our operational greenhouse gas emissions (Scope 1 and 2) by 50 per cent between FY21 and 2035, by implementing our decarbonisation framework, which includes: – The advancement of conceptual projects through our capital investment tollgates, and the successful commissioning of identified emissions reduction projects; – The ongoing assessment of new technologies and alternative energy sources; and – Continued participation and direct investment in research and development partnerships. Consistent with our purpose, we will work to provide a just transition towards net zero in a way that supports our people, local communities and other stakeholders.	In FY22⁽¹⁾, we made strong progress in this critically important area with: – Completion of the pre-feasibility studies for mud-washing and coal to gas conversion projects at Worsley Alumina; – Completion of a pilot plant scale CSIRO VAMMIT (Ventilation Air Methane Mitigation Trial) at Illawarra Metallurgical Coal, and by successfully securing a A\$15M grant from the NSW Government to progress to a commercial scale trial of the technology; – Completion of a feasibility study for the AP3XLE (energy efficiency) project at Hillside Aluminium and commencement of the execution phase; – Commencement of a pre-feasibility study to assess the potential for low-carbon energy sources at Hillside Aluminium; and – Investment in two new initiatives to support development of new technologies – BluVein and Long Duration Energy Storage Council.
Portfolio Management We are planning to further reshape our portfolio and increase our exposure to the metals critical to a low-carbon future by: – Building a high-quality portfolio of greenfields and brownfields exploration and development options; – Optimising our existing portfolio by responsibly transferring ownership of non-core operations or transitioning them to closure; – Developing or acquiring operations which are cash generative through the cycle, improving the overall quality of our business; and – Maintaining discipline by adhering to our proven capital management framework.	In FY22⁽²⁾, we made significant progress in this transformative area with: – The restart of the Brazil Aluminium smelter, which was underpinned by the establishment of long-term, renewable power contracts; – The acquisition of a further 18.2 per cent stake in the Mineracao Rio do Norte (MRN) Joint Venture (to 33 per cent), optimising our position in the Brazilian aluminium value chain; – The acquisition of a further 16.6 per cent interest in Mozal Aluminium, further increasing our exposure to hydro-electric powered aluminium; and – The completion of the acquisition of a 45 per cent interest in the Sierra Gorda copper mine, establishing our first entry into the global copper market. Separately, we did not complete the sale of the Metalloys manganese alloy smelter, which remains on care and maintenance.

(1) Further information on the progress of items listed can be found in our Sustainable Development Report at www.south32.net

(2) Further information on the progress of items listed can be found in the Progress against our strategy section on page 20.

Terms and conditions of rights awarded under equity plans

Type of equity	We deliver deferred STI and LTI equity awards (including Transitional Performance and MSP awards) in the form of share rights. These are rights to receive fully paid ordinary shares in South32 Limited ⁽¹⁾ (or at the Board's discretion, a cash equivalent amount) subject to meeting specific performance and vesting conditions. As the rights are an element of remuneration, no amount is payable by employees to be allocated the rights. If the rights vest, no consideration or exercise price is payable for the allocation of shares. As rights are automatically exercised on vesting, they do not have an expiry date.
Dividend and voting rights	Rights carry no entitlement to voting, dividends or dividend equivalent payments.
Cessation of employment	Unless our Board determines otherwise: – Resignation or termination for cause: all unvested rights lapse; – Death, serious injury, disability or illness that prevents continued employment or total permanent disability: all unvested rights vest immediately; and – Other circumstances, generally: • Deferred STI awards vest immediately; • LTI and MSP Performance awards are pro-rated and the reduced portion remains on foot and eligible for vesting in the ordinary course, subject to any applicable performance hurdles; and • MSP Retention awards are pro-rated and the reduced portion vests immediately. Where awards are pro-rated, the remaining portion lapses.
Change of control	Our Board can determine the level of vesting (if any) having regard to the portion of the vesting period elapsed, performance to date against any applicable performance conditions and other factors they deem appropriate.
Malus and clawback	Our Board can reduce or clawback all vested and unvested STI and LTI awards in certain circumstances to ensure executives do not obtain an inappropriate benefit. These circumstances are broad and can include: – An executive engaging in misconduct; – A material misstatement of our accounts results in vesting; – Behaviours of executives that bring South32 into disrepute; and – Any other factor our Board deems justifiable.
Rights to participate in new issues	A participant cannot take part in new issues of securities in relation to their unvested rights. However, the relevant plan rules include specific provisions dealing with rights issues, bonus issues and corporate actions, and other capital reconstructions.

(1) References in this Remuneration report to 'South32 shares' are references to fully paid ordinary shares in South32 Limited.

Non-Executive Director remuneration

Remuneration policy

As a global company, it's important that we offer competitive Director fees to help attract the appropriate level of experience from a diverse global pool. These fees reflect the size, complexity and global nature of our business and acknowledge the responsibilities of serving on our Board.

To ensure the independence of our Non-Executive Directors, their remuneration does not have an 'at risk' element. Non-Executive Directors receive superannuation benefits but do not receive any termination benefits.

We pay committee fees to recognise the additional responsibilities associated with participating on a Board Committee.

We pay a fixed fee to our Board Chair for all responsibilities, including participation on any Board Committees.

FY22 Non-Executive Director fees and fee pool

We review fees every year and may get external advice to help us do so. We based the review of FY22 fees on data provided by external consultants, which resulted in no increase in the Chair and Non-Executive Directors' fees for FY22. Committee fees also remained unchanged.

The maximum aggregate amount we can pay our Non-Executive Directors is unchanged at A\$3.9M per annum (fee pool). We will always seek shareholder approval before making any changes to this pool.

The table below outlines the fee levels for FY22.

Table 1.12 – FY22 Board fees

Fee	Description	FY22 fee (A\$ per annum)	Increase %
Board of Directors			
Board fees	Chair of the Board	578,000	0
	Other Non-Executive Directors	189,250	0
Risk and Audit, Remuneration, and Sustainability Committees			
Committee fees	Committee Chair	46,000	0
	Members	23,000	0

Minimum shareholding requirements

Each Non-Executive Director is required to accumulate a minimum shareholding level of one year's base fees within a reasonable period. You can find more details of their current shareholdings in Table 1.19.

Travel allowance

As a global company, our Board meetings are ordinarily held in Australia, South Africa and other locations, where travel restrictions allow (see page 68 for more details). Site visits are also an important part of our usual Board program, giving Directors:

- A better understanding of workplace culture through interactions with site-based employees;
- An improved understanding of local and operational risks;
- A chance to participate in continuous education; and
- On-the-ground experience.

As these meetings, site visits and other engagements take time and commitment, particularly if they are in remote locations, we provide our Directors with a travel allowance.

From FY22, our travel allowances were reduced by at least 36 per cent. For air travel to a Board commitment that is greater than three hours but less than 10 hours to the destination, a one-off allowance of A\$5,000 per trip applies (A\$7,840 for FY21). Where air travel is greater than 10 hours to the destination, the allowance per trip is A\$10,000 (A\$16,800 for FY21).

The travel allowance is only paid where travel is undertaken and does not apply to domestic travel to a regularly scheduled Board meeting.

FY22 Non-Executive Director remuneration

In Table 1.13, we have set out the statutory disclosures required under the Corporations Act and in accordance with Australian Accounting Standards, in respect of FY22 remuneration paid to Non-Executive Directors.

Table 1.13 – Non-Executive Director remuneration (A\$'000)

Non-Executive Director	FY22 term		Short-term benefits			Post-employment benefits	Total
			Board & Committee fees	Non-monetary benefits ⁽¹⁾	Other cash allowances & benefits ⁽²⁾	Superannuation	
K Wood	Full year	FY22	554	-	10	24	588
		FY21	556	-	-	22	578
F Cooper AO	Full year	FY22	235	-	10	24	269
		FY21	237	-	-	22	259
G Lansdown	Full year	FY22	256	1	25	1	283
		FY21	235	2	-	-	237
X Liu	Full year	FY22	212	-	10	24	246
		FY21	214	-	-	22	236
N Mtoba	Full year	FY22	212	-	20	1	233
		FY21	212	2	-	-	214
W Osborn	Full year	FY22	235	-	10	24	269
		FY21	237	-	-	22	259
K Rumble⁽³⁾	Full year	FY22	258	2	20	1	281
		FY21	305	2	-	-	307
Total		FY22	1,962	3	105	99	2,169
		FY21	1,996	6	-	88	2,090

(1) Includes assistance with tax return preparation.

(2) Includes travel allowances paid in FY22.

(3) FY21 Board and Committee fees for K Rumble include ZAR 539,750 received for his role as a Non-Executive Director of South32 SA Coal Holdings (Pty) Ltd. This figure has been converted to A\$ using an exchange rate of A\$1:ZAR11.60.

Remuneration report continued

Looking forward to FY23

Following the enhancements made in FY22, no major changes are proposed for the Reward Framework for FY23. The Board has confidence in the integrity of the Reward Framework, the core elements of which have remained unchanged since demerger, and believes it incorporates the necessary flexibility to reward our Executive KMP for performance that is aligned with the interests of stakeholders.

Fixed remuneration

To reflect the market movement in fixed remuneration and the pressure for talent in the industry, the Board approved increases to the fixed remuneration of Executive KMP that are aligned with those applied generally for employees in the country in which the Executive KMP are located, (as outlined in Table 1.14). This is the first increase in fixed remuneration for the CEO since FY20.

Table 1.14 – Fixed remuneration for Executive KMP in FY23, effective 1 September 2022.

Executive KMP	FY22 fixed remuneration (A\$)	FY23 fixed remuneration (A\$)	Increase %
G Kerr	1,815,000	1,906,000	5.0
K Tovich	870,000	914,000	5.1
J Economidis	780,000	819,000	5.0
N Pillay ⁽¹⁾	694,453	736,160	6.0

(1) Fixed remuneration for N Pillay has been converted to A\$ using an exchange rate of A\$1:ZAR11.13.

Short-term incentive

We are not changing the design of the STI for FY23. Our Business Scorecard will continue to focus on maintaining safe, reliable and profitable operations.

Diagram 1.15 – FY23 STI performance metric weightings

Measures	Performance metrics	FY23 weighting
Sustainability	Safety, health, risk management, water performance and community	28.3%
Financial	Production, cost and capital expenditure	28.3%
	Adjusted return on invested capital	28.3%
Strategic priorities	Key elements of the FY23 Business Plan	15%
X		
Business Modifier	Considers factors that are not specifically contemplated in the Business Scorecard	+/-
=		
South32 Business Outcome	Reflects our performance over the financial year	

Long-term incentive

We are not changing the design of the LTI for FY23. The comparator groups against which our TSR performance will be measured, the strategic measures, and the vesting conditions will remain as outlined on page 82.

Director Fees

Board fees will increase by 3% for FY23 as outlined in Table 1.15 below. The total fees paid to Non-Executive Directors in FY23 will not exceed the fee pool (A\$3.9M).

Table 1.15 – FY23 Board fees – effective 1 September 2022

Fee	Description	FY22 (A\$)	FY23 (A\$)	Increase %
Board Fees	Board of Directors			
	Chair of the Board	578,000	595,250	3.0
	Other Non-Executive Directors	189,250	195,000	3.0
Committee Fees	Risk and Audit, Remuneration, and Sustainability Committees			
	Committee Chair	46,000	46,000	-
	Members	23,000	23,000	-

There will be no change to Committee fees or the travel allowance for FY23.

Statutory disclosures

Statutory remuneration table for Executive KMP

In the following table, we have set out the statutory disclosures required under the Corporations Act and in accordance with the Australian Accounting Standards. The amounts shown reflect the remuneration for each Executive KMP that relates to their service in FY22.

Table 1.16 – Statutory remuneration of Executive KMP in FY22 (A\$'000)

Executive KMP		Short-term benefits			Post employment benefits	Termination benefits	Other long-term benefits ⁽³⁾	Share based payments ⁽⁴⁾		Total remuneration	Percentage of total remuneration which is performance tested
		Salary	Cash bonus ⁽¹⁾	Non-monetary benefits ⁽²⁾				LTi	STI		
G Kerr	FY22	1,640	1,215	42	25	-	168	2,500	852	6,442	71%
	FY21	1,765	879	27	23	-	165	2,746	798	6,403	69%
K Tovich	FY22	768	691	9	28	-	79	698	478	2,751	68%
	FY21	755	573	12	25	-	74	618	324	2,381	64%
M Fraser⁽⁵⁾	FY22	386	398	27	-	590	40	480	512	2,433	57%
	FY21	905	484	78	21	-	92	1,296	430	3,306	67%
J Economidis	FY22	726	482	7	40	-	71	637	185	2,148	61%
	FY21	624	273	46	88	-	46	425	43	1,545	48%
N Pillay⁽⁶⁾	FY22	523	217	101	-	-	47	285	56	1,229	45%
	FY21	-	-	-	-	-	-	-	-	-	-
Total	FY22	4,043	3,003	186	93	590	405	4,600	2,083	15,003	
	FY21	4,049	2,209	163	157	-	377	5,085	1,595	13,635	

- (1) STI is provided half in cash (which is included in the cash bonus column of the table) in September following the end of the performance period and half in deferred rights (which are included in the share-based payments column of the table). The value of the deferred equity portion is amortised over the vesting period and included in the STI share-based payments column. The FY22 pro-rated STI awarded to M Fraser will be paid entirely in cash in September 2022 in accordance with the treatment of a good leaver under the STI Plan Rules.
- (2) Non-monetary benefits are non-pensionable and include such items as insurances, personal tax assistance and the notional interest benefit on a one-off interest free loan provided to M Fraser. This also includes relocation benefits provided to N Pillay prior to becoming a member of Executive KMP to assist with his relocation to South Africa.
- (3) Other long-term benefits is the accounting expense of annual and long-service leave accrued.
- (4) The related awards were not actually provided to the Executive KMP. The figures are calculated in accordance with Australian Accounting Standards and are the amortised fair values of equity and equity-related instruments that have been granted to Executive KMP. Refer to Table 1.17 on page 100 in this report for information on awards outstanding during FY22.
- (5) Termination benefits for M Fraser include payment in lieu of six months' notice (A\$500,000) and a payment for relocation and tax advice (A\$90,000). Share-based payments for M Fraser reflect the accounting treatment of good leaver status applied to his equity awards on leaving South32, including the deferred component of the FY21 STI that was paid in cash in November 2021 (A\$484,320).
- (6) Remuneration for N Pillay is for the period from when he became a member of Executive KMP (1 December 2021). Salary for N Pillay has been converted to A\$ using an exchange rate of A\$1:ZAR11.13 with the exception of a relocation allowance of ZAR 1,500,000 paid on 25 October 2021 which has been converted to A\$ using an exchange rate of A\$1:ZAR10.99.

Details of rights held by Executive KMP

In the following table, we have set out more information about the rights over South32 shares held by Executive KMP, including the movements in rights held during FY22. See page 95 for terms and conditions of our Equity Incentive Plans.

Table 1.17 – Detail and movement of rights over South32 shares held by Executive KMP during FY22

Award ⁽¹⁾⁽²⁾	Opening balance as at 1 July 2021	Grant date	Granted in FY22 ⁽³⁾	Vested in FY22		Forfeited or other change in FY22		Closing balance as at 30 June 2022	Anticipated vesting date
Executive KMP	Number		Number	Number ⁽⁴⁾	% ⁽⁵⁾	Number	% ⁽⁵⁾	Number	
G Kerr	8,502,426		1,509,175	352,097	15	2,026,717	85	7,632,787	
FY21 Deferred STI (S)	-	06-Dec-21	242,160	-	-	-	-	242,160	Aug-23
FY22 LTI (P)	-	06-Dec-21	1,267,015	-	-	-	-	1,267,015	Aug-25
FY20 Deferred STI (S)	280,988	04-Dec-20	-	-	-	-	-	280,988	Aug-22
FY21 LTI (P)	2,695,544	04-Dec-20	-	-	-	-	-	2,695,544	Aug-24
FY19 Deferred STI (S)	352,097	06-Dec-19	-	352,097	100	-	-	-	Aug-21
FY20 LTI (P)	1,696,261	06-Dec-19	-	-	-	-	-	1,696,261	Aug-23
FY19 LTI (P)	1,450,819	07-Dec-18	-	-	-	-	-	1,450,819	Aug-22
FY18 LTI (P)	2,026,717	13-Dec-17	-	-	-	2,026,717	100	-	Aug-21
K Tovich	2,036,097		561,678	83,243	31	189,312	69	2,325,220	
FY21 Deferred STI (S)	-	06-Dec-21	157,804	-	-	-	-	157,804	Aug-23
FY22 LTI (P)	-	06-Dec-21	403,874	-	-	-	-	403,874	Aug-25
FY20 Deferred STI (S)	156,030	04-Dec-20	-	-	-	-	-	156,030	Aug-22
FY21 LTI (P)	821,782	04-Dec-20	-	-	-	-	-	821,782	Aug-24
FY19 Deferred STI (S)	27,518	06-Dec-19	-	27,518	100	-	-	-	Aug-21
FY20 LTI (P)	517,133	06-Dec-19	-	-	-	-	-	517,133	Aug-23
FY20 Transitional LTI (P)	129,283	06-Dec-19	-	-	-	-	-	129,283	Aug-22
FY19 MSP Retention (S)	55,725	07-Dec-18	-	55,725	100	-	-	-	Aug-21
FY19 MSP Performance (P)	139,314	07-Dec-18	-	-	-	-	-	139,314	Aug-22
FY18 MSP Performance (P)	189,312	13-Nov-17	-	-	-	189,312	100	-	Aug-21
M Fraser	3,952,412		-	335,538	14	2,129,903	86	1,486,971	
FY20 Deferred STI (S)	154,814	04-Dec-20	-	154,814	100	-	-	-	Nov-21
FY21 LTI (P)	1,237,623	04-Dec-20	-	-	-	798,822	65	438,801	Aug-24
FY19 Deferred STI (S)	180,724	06-Dec-19	-	180,724	100	-	-	-	Aug-21
FY20 LTI (P)	778,816	06-Dec-19	-	-	-	307,582	39	471,234	Aug-23
FY19 LTI (P)	674,863	07-Dec-18	-	-	-	97,927	15	576,936	Aug-22
FY18 LTI (P)	925,572	13-Dec-17	-	-	-	925,572	100	-	Aug-21
J Economidis	1,058,467		501,816	49,481	40	73,156	60	1,437,646	
FY21 Deferred STI (S)	-	06-Dec-21	37,628	-	-	-	-	37,628	Aug-23
FY22 LTI (P)	-	06-Dec-21	362,094	-	-	-	-	362,094	Aug-25
FY22 Transitional LTI (P)	-	06-Dec-21	102,094	-	-	-	-	102,094	Aug-24
FY21 MSP Retention (S)	99,009	04-Dec-20	-	-	-	-	-	99,009	Aug-23
FY21 MSP Performance (P)	495,049	04-Dec-20	-	-	-	-	-	495,049	Aug-24
FY20 MSP Retention (S)	62,305	06-Dec-19	-	-	-	-	-	62,305	Aug-22
FY20 MSP Performance (P)	155,763	06-Dec-19	-	-	-	-	-	155,763	Aug-23
FY19 MSP Retention (S)	49,481	07-Dec-18	-	49,481	100	-	-	-	Aug-21
FY19 MSP Performance (P)	123,704	07-Dec-18	-	-	-	-	-	123,704	Aug-22
FY18 MSP Performance (P)	73,156	07-May-18	-	-	-	73,156	100	-	Aug-21
N Pillay⁽⁶⁾	608,028		422,996	-	-	-	-	1,031,024	
FY22 LTI (P)	-	06-Dec-21	329,962	-	-	-	-	329,962	Aug-25
FY22 Transitional LTI (P)	-	06-Dec-21	93,034	-	-	-	-	93,034	Aug-24
FY21 MSP Retention (S)	86,262	04-Dec-20	-	-	-	-	-	86,262	Aug-23
FY21 MSP Performance (P)	215,655	04-Dec-20	-	-	-	-	-	215,655	Aug-24
FY20 MSP Retention (S)	54,283	06-Dec-19	-	-	-	-	-	54,283	Aug-22
FY20 MSP Performance (P)	135,708	06-Dec-19	-	-	-	-	-	135,708	Aug-23
FY19 MSP Performance (P)	116,120	07-Dec-18	-	-	-	-	-	116,120	Aug-22

- (1) At the time of vesting, the quantum of all awards that vest based on performance and/or service conditions will automatically convert to South32 ordinary shares in the participant's name for nil consideration. Any rights that do not vest will immediately lapse, hence there is no expiry date associated with the awards. (S) - Service only or (P) - Performance and Service conditions apply. As rights are subject to service and/or performance conditions, the minimum possible total value of rights granted under South32 Equity Plans for future financial years is nil and the maximum possible total value is the number of rights multiplied by the market price of South32 shares on the date of vesting.
- (2) Further details regarding each of the prior year equity grants are described in past South32 Annual Reports.
- (3) The fair value for awards granted in FY22 is the grant date fair value for accounting purposes being A\$3.36 for the FY21 Deferred STI award, A\$2.35 for the FY22 LTI award and A\$2.39 for the FY22 Transitional LTI award. Shareholders approved, under ASX Listing Rule 10.14, the grant of rights for the CEO at the AGM on 28 October 2021.
- (4) Rights converted to South32 ordinary shares for nil consideration on 20 August 2021. The South32 closing share price on this date was A\$2.78. M Fraser's FY20 Deferred STI vested in full on 1 December 2021 in accordance with the treatment of a good leaver under the STI Plan Rules. The closing share price on this date was A\$3.67.
- (5) The percentage is based on the maximum number of rights available to vest in FY22.
- (6) N Pillay became a member of Executive KMP on 1 December 2021. Opening balance is as at this date and the movements reflect changes since that date.

Details of awards for MSP and FY22 Transitional award

Key terms and conditions of MSP awards and the FY22 Transitional award granted to Noel and Jason are outlined below in table 1.18. For additional terms of the rights granted under the two plans, see terms and conditions of rights awarded under equity plans (page 95).

Table 1.18 – Key terms and performance conditions of awards⁽¹⁾

Award	Key terms and performance conditions
Management Share Plan	The MSP is our LTI plan for eligible management employees below Lead Team level. The Plan has two elements: - Retention rights with a three-year service period from 1 July to 30 June, vesting in August three years from grant provided the employee remains employed by South32⁽²⁾; and - Performance rights with a four-year performance and service period from 1 July to 30 June, vesting in August four years from grant, subject to the same performance and vesting conditions as the LTI for Executive KMP (see page 82) for that year. There is no retesting if the performance condition is not met and any rights that don't vest will immediately lapse/be forfeited. Rights do not attract any entitlement to voting, dividends or dividend equivalent payments. Katie and Noel participated in the MSP prior to being appointed to the Lead Team. As Jason was acting in the Chief Operating Officer role in FY21, he continued to participate in the MSP.
Transitional Performance award⁽³⁾	This one-off award is granted to address a potential shortfall in vesting that results from appointment to the Lead Team due to the transition from the MSP (three-year retention rights and four-year performance rights) to the LTI plan for the Lead Team (four-year performance rights). The FY22 award granted to Jason and Noel is subject to the same TSR performance conditions as our FY22 LTI award for Executive KMP (see Components of our reward on page 82), except this award has a three-year performance period, from 1 July 2021 to 30 June 2024. The performance conditions are: - Two-thirds is tested relative to the TSR of the constituents of a mining sector index (IHS Markit Global Mining Index) at 1 July 2021; and - One-third is tested relative to the TSR of a world index (MSCI World Index). For the award to vest in full, our TSR would need to exceed the TSR of the company at the 75th percentile of the IHS Markit Global Mining Index constituent group and outperform the MSCI World Index by 17.4 per cent. There is no retesting if the performance conditions are not met and any rights that don't vest will immediately lapse. Rights do not attract any entitlement to voting, dividends or dividend equivalent payments.

(1) See page 93 for key terms of the LTI.

(2) The retention rights are subject to a service condition. Performance hurdles are factored into the performance rights component of MSP awards.

(3) Further details regarding Transitional Performance awards granted in earlier years are described in past South32 Annual Reports.

Shareholdings of KMP

The minimum shareholding requirement for Executive KMP is summarised on page 83.

For Non-Executive Directors, the approach used to determine the minimum shareholding requirement of one year's base fee is the cost to the Non-Executive Director to acquire the shares. All Non-Executive Directors meet this requirement. The percentage of fees reflected in the table below is based on our share price at 30 June 2022.

Table 1.19 – South32 shares held directly, indirectly or beneficially by KMP, including their related parties

	Held at 1 July 2021	Received on vesting of rights	Received as remuneration	Other net change ⁽¹⁾	Held at 30 June 2022 ⁽²⁾	% of Board fees/ fixed remuneration ⁽³⁾
Non-Executive Directors						
K Wood	367,825	-	-	-	367,825	251
F Cooper AO	128,010	-	-	-	128,010	267
G Lansdown	45,000	-	-	35,000	80,000	167
X Liu	60,000	-	-	-	60,000	125
N Mtoba	69,386	-	-	2,000	71,386	149
W Osborn	174,104	-	-	-	174,104	362
K Rumble	161,380	-	-	-	161,380	336
Executive KMP						
G Kerr	3,618,010	352,097	-	(165,486)	3,804,621	826
K Tovich	432,266	83,243	-	(59,935)	455,574	206
M Fraser ⁽⁴⁾	3,325,403	335,538	-	(250,391)	3,410,550	1,344
J Economidis	29,262	49,481	-	-	78,743	40
N Pillay ⁽⁵⁾	292,167	-	-	-	292,167	166

(1) Other net change includes purchases and sales of shares primarily to cover tax liabilities.

(2) For M Fraser, shares held is as at 1 December 2021.

(3) Based on Board fees and fixed remuneration at 30 June 2022 and the closing price of South32 shares as at that date of A\$3.94.

(4) M Fraser ceased being a member of KMP effective 30 November 2021. Included in "Received on vesting of rights" are 154,814 rights that vested on 30 November 2021, and converted to shares on 1 December 2021.

(5) N Pillay became a member of Executive KMP on 1 December 2021. Opening balance is as at this date.

Additional information

Transactions with KMP

There are no amounts payable to any KMP at 30 June 2022.

On 22 June 2021 an interest free loan of A\$823,906 was made to Mike in relation to South African income tax payable on his South32 remuneration. As at 1 July 2021, the full loan remained outstanding. There was no maturity date for this loan. The final instalment to repay the loan in full was made on 24 November 2021. The official rate of interest published by the South Africa Revenue Service for loan fringe benefits to South African employees was 4.50 per cent at the time the loan was repaid.

During FY22, there were no transactions between KMP or their close family members and the South32 Group other than as described in this report.

There are no loans with any other KMP.

A number of Directors of the Group have control or joint control of other entities (also known as personal entities). During the year, there have been no transactions between those entities and the South32 Group, and no amounts were owed by or to the South32 Group from those entities.

This Remuneration report was approved by our Board on 8 September 2022.

FINANCIAL REPORT

Consolidated income statement	104
Consolidated statement of comprehensive income	105
Consolidated balance sheet	106
Consolidated cash flow statement	107
Consolidated statement of changes in equity	108
Notes to financial statements – Basis of preparation	109
1. Reporting entity	109
2. Basis of preparation	109
3. New standards and interpretations	111
Notes to financial statements – Results for the year	112
4. Segment information	112
5. Expenses	121
6. Tax	122
7. Dividends	125
8. Earnings per share	125
Notes to financial statements – Operating assets and liabilities	126
9. Trade and other receivables	126
10. Inventories	126
11. Property, plant and equipment	127
12. Intangible assets	130
13. Impairment of non-financial assets	131
14. Trade and other payables	136
15. Provisions	136
Notes to financial statements – Capital structure and financing	139
16. Cash and cash equivalents	139
17. Interest bearing liabilities	139
18. Net finance costs	140
19. Financial assets and financial liabilities	140
20. Share capital	150
Notes to financial statements – Other notes	151
21. Auditor's remuneration	151
22. Pension and other post-retirement obligations	151
23. Employee share ownership plans	152
24. Contingent assets and liabilities	156
25. Subsidiaries	156
26. Equity accounted investments	157
27. Interests in joint operations	159
28. Key management personnel	160
29. Related party transactions	160
30. Acquisition of subsidiaries and joint operations	161
31. Acquisition of equity accounted investments	162
32. Parent entity information	163
33. Discontinued operation	164
34. Subsequent events	165
Directors' declaration	166
Lead auditor's independence declaration	167
Independent auditor's report	168



Consolidated income statement

for the year ended 30 June 2022

US\$M	Note	FY22	FY21
Continuing operations			
Revenue:			
Group production	4	8,522	5,102
Third party products and services	4	747	374
		9,269	5,476
Other income		183	157
Expenses excluding net finance costs	5	(6,000)	(5,571)
Share of profit/(loss) of equity accounted investments	26	272	141
Profit/(loss) from continuing operations		3,724	203
Comprising:			
Group production		3,704	193
Third party products and services		20	10
Profit/(loss) from continuing operations		3,724	203
Finance expenses		(110)	(178)
Finance income		79	17
Net finance costs	18	(31)	(161)
Profit/(loss) before tax from continuing operations		3,693	42
Income tax (expense)/benefit	6	(1,024)	100
Profit/(loss) after tax from continuing operations		2,669	142
Discontinued operation			
Profit/(loss) after tax from a discontinued operation	33	-	(337)
Profit/(loss) for the year		2,669	(195)
Attributable to:			
Equity holders of South32 Limited		2,669	(195)
Profit/(loss) from continuing operations for the year attributable to equity holders of South32 Limited:			
Basic earnings per share (cents)	8	57.4	3.0
Diluted earnings per share (cents)	8	57.0	3.0
Profit/(loss) for the year attributable to equity holders of South32 Limited:			
Basic earnings per share (cents)	8	57.4	(4.1)
Diluted earnings per share (cents)	8	57.0	(4.1)

The accompanying notes form part of the consolidated financial statements.

Consolidated statement of comprehensive income

for the year ended 30 June 2022

US\$M	Note	FY22	FY21
Profit/(loss) for the year		2,669	(195)
Other comprehensive income			
<i>Items that may be reclassified to the Consolidated Income Statement:</i>			
Equity accounted investments – share of other comprehensive income/(loss), net of tax	26	(4)	-
Total items that may be reclassified to the Consolidated Income Statement		(4)	-
<i>Items not to be reclassified to the Consolidated Income Statement:</i>			
Investments in equity instruments designated as fair value through other comprehensive income (FVOCI):			
Net fair value gains/(losses)		(78)	47
Income tax (expense)/benefit		24	(15)
Equity accounted investments – share of other comprehensive income/(loss), net of tax	26	1	(3)
Gains/(losses) on pension and medical schemes	15	3	1
Income tax (expense)/benefit recognised within other comprehensive income		(1)	-
Total items not to be reclassified to the Consolidated Income Statement		(51)	30
Total other comprehensive income/(loss)		(55)	30
Total comprehensive income/(loss)		2,614	(165)
Attributable to:			
Equity holders of South32 Limited		2,614	(165)

The accompanying notes form part of the consolidated financial statements.

Consolidated balance sheet

as at 30 June 2022

US\$M	Note	FY22	FY21
ASSETS			
Current assets			
Cash and cash equivalents	16	2,365	1,613
Trade and other receivables	9	844	527
Other financial assets	19	1	15
Inventories	10	982	716
Current tax assets		4	13
Other		44	38
Total current assets		4,240	2,922
Non-current assets			
Trade and other receivables	9	1,903	259
Other financial assets	19	64	121
Inventories	10	76	74
Property, plant and equipment	11	8,988	8,938
Intangible assets	12	186	189
Equity accounted investments	26	470	380
Deferred tax assets	6	394	348
Other		15	11
Total non-current assets		12,096	10,320
Total assets		16,336	13,242
LIABILITIES			
Current liabilities			
Trade and other payables	14	989	777
Interest bearing liabilities	17	402	408
Other financial liabilities	19	6	11
Current tax payables		308	27
Provisions	15	186	239
Deferred income		6	-
Total current liabilities		1,897	1,462
Non-current liabilities			
Trade and other payables	14	8	2
Interest bearing liabilities	17	1,425	799
Other financial liabilities	19	84	-
Deferred tax liabilities	6	307	265
Provisions	15	1,835	1,759
Deferred income		1	1
Total non-current liabilities		3,660	2,826
Total liabilities		5,557	4,288
Net assets		10,779	8,954
EQUITY			
Share capital	20	13,469	13,597
Treasury shares	20	(32)	(22)
Reserves		(3,558)	(3,567)
Retained earnings/(accumulated losses)		901	(1,053)
Total equity attributable to equity holders of South32 Limited		10,780	8,955
Non-controlling interests		(1)	(1)
Total equity		10,779	8,954

The accompanying notes form part of the consolidated financial statements.

Consolidated cash flow statement

for the year ended 30 June 2022

US\$M	Note	FY22	FY21
Operating activities			
Profit/(loss) before tax from continuing operations		3,693	42
Profit/(loss) before tax from a discontinued operation		-	(340)
Adjustments for:			
Non-cash or non-operating significant items		(77)	(55)
Depreciation and amortisation expense		624	720
Net impairment loss/(reversal) of financial assets		26	-
Net impairment loss/(reversal) of non-financial assets		145	772
Employee share awards expense		23	32
Net finance costs		31	204
Share of (profit)/loss of equity accounted investments		(272)	(133)
Loss on disposal of a discontinued operation		-	159
(Gains)/losses on derivative instruments, contingent consideration and other investments measured at fair value through profit or loss (FVTPL)		(29)	(44)
Other non-cash or non-operating items		(18)	(6)
Changes in assets and liabilities:			
Trade and other receivables		(300)	(156)
Inventories		(206)	(142)
Trade and other payables		160	264
Provisions and other liabilities		(82)	95
Cash generated from operations		3,718	1,412
Interest received		66	26
Interest paid		(70)	(70)
Income tax paid		(868)	(163)
Dividends received		-	3
Dividends received from equity accounted investments		224	197
Net cash flows from operating activities		3,070	1,405
Investing activities			
Purchases of property, plant and equipment		(522)	(536)
Exploration expenditure		(70)	(54)
Exploration expenditure expensed and included in operating cash flows		37	25
Purchase of intangibles		(4)	(1)
Investment in financial assets		(222)	(152)
Acquisition of subsidiaries and joint operations, net of their cash	30	(114)	-
Acquisition of equity accounted investments	31	(1,430)	-
Disposal of a discontinued operation, net of their cash		-	(70)
Cash outflows from investing activities		(2,325)	(788)
Proceeds from sale of property, plant and equipment and intangibles		-	40
Proceeds from financial assets		230	140
Net cash flows from investing activities		(2,095)	(608)
Financing activities			
Proceeds from interest bearing liabilities		1,527	12
Repayment of interest bearing liabilities		(932)	(52)
Purchase of shares by Employee Share Ownership Plan (ESOP) Trusts		(22)	-
Share buy-back		(128)	(346)
Dividends paid	7	(660)	(115)
Net cash flows from financing activities		(215)	(501)
Net increase in cash and cash equivalents		760	296
Cash and cash equivalents, net of overdrafts, at the beginning of the financial year		1,613	1,315
Foreign currency exchange rate changes on cash and cash equivalents		(8)	2
Cash and cash equivalents, net of overdrafts, at the end of the financial year	16	2,365	1,613

The accompanying notes form part of the consolidated financial statements.

Consolidated statement of changes in equity

for the year ended 30 June 2022

US\$M	Attributable to equity holders of South32 Limited								Total equity
	Share capital	Treasury shares	Financial assets reserve ⁽¹⁾	Employee share awards reserve ⁽²⁾	Other reserves ⁽³⁾	Retained earnings/ (accumulated losses)	Total	Non-controlling interests	
Balance as at 1 July 2021	13,597	(22)	(22)	48	(3,593)	(1,053)	8,955	(1)	8,954
Profit/(loss) for the year	-	-	-	-	-	2,669	2,669	-	2,669
Other comprehensive income/(loss)	-	-	(54)	-	(4)	3	(55)	-	(55)
Total comprehensive income/(loss)	-	-	(54)	-	(4)	2,672	2,614	-	2,614
Transactions with owners:									
Dividends	-	-	-	-	-	(660)	(660)	-	(660)
Shares bought back and cancelled	(128)	-	-	-	-	-	(128)	-	(128)
Employee share entitlements for unvested awards, net of tax	-	-	-	27	-	-	27	-	27
Employee share awards vested and lapsed, net of tax	-	12	-	(30)	-	12	(6)	-	(6)
Purchase of shares by ESOP Trusts	-	(22)	-	-	-	-	(22)	-	(22)
Transfer of cumulative fair value loss on an investment in equity instruments designated as FVOCI ⁽⁴⁾	-	-	70	-	-	(70)	-	-	-
Balance as at 30 June 2022	13,469	(32)	(6)	45	(3,597)	901	10,780	(1)	10,779
Balance as at 1 July 2020	13,943	(49)	(54)	81	(3,593)	(765)	9,563	(1)	9,562
Profit/(loss) for the year	-	-	-	-	-	(195)	(195)	-	(195)
Other comprehensive income/(loss)	-	-	32	-	-	(2)	30	-	30
Total comprehensive income/(loss)	-	-	32	-	-	(197)	(165)	-	(165)
Transactions with owners:									
Dividends	-	-	-	-	-	(115)	(115)	-	(115)
Shares bought back and cancelled	(346)	-	-	-	-	-	(346)	-	(346)
Employee share entitlements for unvested awards, net of tax	-	-	-	26	-	-	26	-	26
Employee share awards vested and lapsed, net of tax	-	24	-	(59)	-	24	(11)	-	(11)
Sale of shares by ESOP Trusts	-	3	-	-	-	-	3	-	3
Balance as at 30 June 2021	13,597	(22)	(22)	48	(3,593)	(1,053)	8,955	(1)	8,954

(1) Represents the fair value movement in financial assets designated as FVOCI.

(2) Represents the accrued employee entitlements to share awards that have not yet vested.

(3) Primarily consists of the common control transaction reserve of US\$3,569 million, which reflects the difference between consideration paid and the carrying value of assets and liabilities acquired, as well as the gains/losses on disposal of entities as part of the Demerger of the Group in 2015.

(4) Refer to note 31 Acquisition of equity accounted investments.

The accompanying notes form part of the consolidated financial statements.

Notes to financial statements – Basis of preparation

This section sets out the accounting policies that relate to the consolidated financial statements of South32 Limited (referred to as the Company) and its subsidiaries and joint arrangements (collectively, the Group) as a whole. Where an accounting policy, critical accounting estimate, assumption or judgement is specific to a note, these are described within the note to which they relate. These policies have been consistently applied to all periods presented, except as described in note 3 New standards and interpretations.

The consolidated financial statements of the Group for the year ended 30 June 2022 were authorised for issue in accordance with a resolution of the Directors on 8 September 2022.

1. Reporting entity

South32 Limited is a for-profit company limited by shares incorporated in Australia with a primary listing on the Australian Securities Exchange (ASX), a standard listing on the London Stock Exchange (LSE) and a secondary listing on the Johannesburg Stock Exchange (JSE).

The nature of the operations and principal activities of the Group are described in note 4 Segment information.

2. Basis of preparation

The consolidated financial statements are general purpose financial statements which:

- Have been prepared in accordance with the requirements of the *Corporations Act 2001*, Australian Accounting Standards and other authoritative pronouncements of the Australian Accounting Standards Board (AASB), International Financial Reporting Standards (IFRS) and other authoritative pronouncements of the International Accounting Standards Board (IASB);
- Have been prepared on a historical cost basis, except for post-retirement assets and obligations, derivative financial instruments and certain other financial assets and liabilities which are required to be measured at fair value;
- Are presented in US dollars, which is the functional currency of the majority of the Group's operations, and all values are rounded to the nearest million dollars (US\$M or US\$ million) unless otherwise stated, in accordance with *ASIC Corporations Instrument 2016/191*;
- Present reclassified comparative information where required for consistency with the current year's presentation, including changes in the presentation of the segment results as outlined in note 4 Segment information;
- Adopt all new and amended accounting standards and interpretations issued by the AASB that are relevant to the operations of the Group and effective for reporting periods beginning on or after 1 July 2021. Refer to note 3 New standards and interpretations for further details; and
- Do not early adopt any accounting standards and interpretations that have been issued or amended but are not yet effective as described in note 3 New standards and interpretations.

(a) Basis of consolidation

The consolidated financial statements comprise the financial statements of the Group. A list of significant controlled entities (subsidiaries) at year end is contained in note 25 Subsidiaries.

The financial statements of subsidiaries are prepared for the same reporting period as the parent entity, using consistent accounting policies.

Changes in the Group's interest in a subsidiary that do not result in a loss of control are accounted for as equity transactions.

(b) Foreign currency translation

The functional currency of the Group's operations is primarily the US dollar as this is assessed to be the principal currency of the economic environments in which they operate.

Transactions denominated in foreign currencies are initially recorded in the functional currency using the exchange rate ruling at the date of the underlying transaction. Monetary assets and liabilities denominated in foreign currencies are translated using the rate of exchange at year end. Exchange gains or losses on retranslation are included in the Consolidated Income Statement, with the exception of foreign exchange gains or losses on foreign currency provisions for closure and rehabilitation which are capitalised in property, plant and equipment for operating sites.

The exchange rates used have been obtained from Bloomberg.

2. Basis of preparation continued

(c) Key estimates, assumptions and judgements

The preparation of the consolidated financial statements has required management to apply accounting policies and methodologies based on complex and subjective judgements and estimates. Management based its estimates and judgements on historical experience and assumptions it believes to be reasonable and realistic under the circumstances. The use of these estimates, assumptions and judgements affects the amounts reported in the consolidated financial statements. Actual results may differ from those reported in these statements due to the uncertainties that characterise the assumptions and conditions on which the estimates are based.

Specific sources of uncertainty identified by the Group are set out on the following pages and/or together with the applicable note, as follows:

Key estimates, assumptions and judgements

Recognition of deferred taxes	note 6
Uncertain tax matters	note 6
Useful economic lives of assets	note 11
Impairment of non-financial assets	note 13
Closure and rehabilitation provisions	note 15

Russia-Ukraine conflict

In February 2022, the Russian government commenced a war against the people of Ukraine. The active and ongoing conflict has resulted in a humanitarian crisis and significant disruptions to financial and commodity markets. The Group has no operational footprint in Russia or Ukraine and has made the values based decision to cease commodity sales to Russian entities. The Group's broader commodity sales exposure to Russia has historically been limited and, until the current circumstances change, we will not enter into any new transactions or business relationships with Russian entities. The Group has considered the impacts of the conflict on each of its significant accounting estimates, assumptions and judgements, and continues to monitor potential adverse effects resulting from the active conflict and applicable sanctions.

COVID-19 impact

The Group continues to respond to COVID-19, adjusting to the different phases of the pandemic across the jurisdictions where it operates, focusing on keeping our people safe and well, maintaining safe and reliable operations and supporting our communities. Estimates and assumptions made in these consolidated financial statements reflect current market conditions, including the impact of COVID-19.

Climate change-related risks and opportunities

The Group has released its 2022 Sustainable Development Report, prepared in accordance with the Global Reporting Initiative (GRI) Sustainability Reporting Standards (Core option), the GRI Mining and Metals Sector Supplement and the ICMM Mining Principles. The report outlines how we manage our most important sustainability issues and the progress we are making, and includes, for the first time, our Climate Change Action Plan (CCAP).

While we are committed to the goals of the Paris Agreement, current global signposts continue to point towards a probable trajectory of at least 2°C warming which forms our base case for global transition to a low-carbon world. Our base case directly informs our commodity demand outlook, forecast commodity prices and carbon prices. Any change in our base case may in turn impact our Ore Reserve estimates, mine plans, production volumes and future costs.

The key estimates, assumptions and judgements made in these consolidated financial statements take into account the Group's expectations of transition and physical risks and opportunities associated with climate change, and are consistent with the Group's reporting on climate-related matters. These expectations may affect the Group's financial results and financial position in a number of ways, including the following:

- Asset recoverable amounts may be affected due to changes in estimated future cash flows driven by, for example, changes in forecast commodity prices, operating costs and carbon prices (refer to note 13 Impairment of non-financial assets);
- The useful lives of assets, and therefore the depreciation and amortisation charged in the Consolidated Income Statement, may be impacted by changes in mine plans (refer to note 11 Property, plant and equipment);
- The commercial viability of exploration areas of interest may impact the final investment decision and therefore the recoverability of exploration and evaluation assets (refer to note 13 Impairment of non-financial assets); and
- Timing and cost of closure and rehabilitation activities (refer to note 15 Provisions).

The carrying amount of associated deferred tax assets may change due to changes in estimates of the likely recovery of the related tax benefits.

The Group's key estimates, assumptions and judgements are based on the Group's expectations and assessments of climate change-related risks and opportunities at the date of this report, and actual results may differ. Government policies and market developments continue to drive uncertainty in commodity and carbon price outlooks, and the Group continues to assess the potential financial impacts of physical risks and opportunities associated with climate change. These risks and opportunities may impact the Group's approach to climate change, assumptions and judgements, which may in turn result in material changes to financial results and the carrying values of assets and liabilities in future reporting periods.

2. Basis of preparation continued

(c) Key estimates, assumptions and judgements continued

Ore Reserves

An Ore Reserve is the economically mineable part of the Measured and/or Indicated Mineral Resource that can be legally extracted, or where there is a reasonable expectation that approvals for extraction will be granted. In order to estimate Ore Reserves, consideration is required for a range of modifying factors, including mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and governmental. When reporting Ore Reserves, the relevant studies, to at least a pre-feasibility level, must demonstrate that, at the time of reporting, extraction could be reasonably justified. Management will form a view of forecast sales prices, based on current and long-term historical average price trends.

Estimating the quantity and/or grade of Mineral Resources requires the location, quantity, grade (or quality), continuity and other geological characteristics to be known, estimated or interpreted from specific geological evidence and knowledge, including sampling, in order to satisfy the requirement that there are reasonable prospects for eventual economic extraction. This process may require complex and difficult geological assessments to interpret the data.

With the exception of Sierra Gorda, the Group reports Ore Reserves and Mineral Resources in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code), and the ASX Listing Rules Chapter 5: Additional reporting on mining and oil and gas production and exploration activities. The Sierra Gorda estimates of mineral resources and mineral reserves are foreign estimates under the ASX Listing Rules and are not reported in accordance with the JORC Code. Refer to the Resources and Reserves section of this report for further information on the qualifying foreign estimates related to Sierra Gorda.

Because the economic assumptions used to estimate the Ore Reserves change from period to period, and because additional geological data is generated during the course of operations, estimates of the Ore Reserves and Mineral Resources may change from period to period. The Group's planning processes consider the impacts of climate change on its Ore Reserves, including assessments of operating costs and the impact of extreme weather events on the expectation of economic extraction.

Similar to climate-change related risks and opportunities, changes in reported Ore Reserves may affect the Group's financial results and financial position in a number of ways, including asset recoverable amounts, useful lives of assets, commercial viability of exploration areas of interest, timing and cost of closure and rehabilitation activities and the recovery of any associated deferred tax assets.

3. New standards and interpretations

(a) New accounting standards and interpretations effective from 1 July 2021

The following new accounting standards and interpretations have been published that are effective for the 30 June 2022 reporting period:

- Amendments to AASB 9, AASB 7, AASB 4 and AASB 16 - Interest Rate Benchmark Reform Phase 2.

The Group has reviewed these amendments and concluded that none have a significant impact on the Group.

(b) New accounting standards and interpretations issued but not effective

The following new accounting standards and interpretations have been published that are not effective for the 30 June 2022 reporting period:

- Amendments to AASB 101 - Classification of Liabilities as Current or Non-current;
- Amendments to AASB 137 - Onerous Contracts, Costs to Fulfil a Contract;
- Amendments to AASB 3 - Updating a reference to the Conceptual Framework;
- Amendments to AASB 116 - Property, Plant and Equipment, Proceeds before Intended Use;
- Amendments to AASB 10 and AASB 128 - Sale or Contribution of Assets between an Investor and its Associate or Joint Venture;
- Amendments to AASB 7, AASB 101, AASB 108 and AASB 134 - Disclosure of Accounting Policies and Definition of Accounting Estimates; and
- Amendments to AASB 1 and AASB 112 - Deferred Tax related to Assets and Liabilities arising from a Single Transaction.

The Group has reviewed these amendments and improvements and concluded that none will have a significant impact on the Group. The Group does not intend to early adopt any of the new standards or interpretations. It is expected that where applicable, these standards and interpretations will be adopted on each respective effective date.

Notes to financial statements – Results for the year

This section focuses on the results and performance of the Group. This covers both profitability and the resultant return to shareholders via earnings per share.

4. Segment information

(a) Description of segments

The operating segments (also referred to as operations) are organised and managed separately according to the nature of products produced.

Certain members of the Lead Team (the chief operating decision makers) and the Board of Directors monitor the segment results regularly for the purpose of making decisions about resource allocation and performance assessment. During the current financial reporting period the internal reporting of the Group's consolidated financial results and performance to the Lead Team was changed. Consolidated financial results of the Group are reported on a proportional consolidation basis, including material equity accounted joint ventures, consistent with the reporting of the Group's operating segments and includes non-IFRS financial measures. Due to the change in reporting and presentation of the Group's consolidated results, the prior year comparative disclosures, together with the required reconciliations, have been updated.

The principal activities of each operating segment are summarised as follows:

Operating segment ⁽¹⁾	Principal activities
Worsley Alumina	Integrated bauxite mine and alumina refinery in Australia
Brazil Alumina	Integrated bauxite mine ⁽²⁾ and alumina refinery in Brazil
Brazil Aluminium ⁽³⁾	Aluminium smelter in Brazil
Hillside Aluminium	Aluminium smelter in South Africa
Mozal Aluminium	Aluminium smelter in Mozambique
Sierra Gorda ⁽⁴⁾	Copper mine in Chile
Cannington	Silver, lead and zinc mine in Australia
Hermosa	Base metals exploration and development option in the United States
Cerro Matoso	Integrated laterite ferronickel mining and smelting complex in Colombia
Illawarra Metallurgical Coal (IMC)	Metallurgical coal mines in Australia
Australia Manganese	Manganese ore mine in Australia
South Africa Manganese	Manganese ore mines in South Africa
South Africa Energy Coal (SAEC) ⁽⁵⁾	Energy coal mines in South Africa

(1) The Eagle Downs Metallurgical Coal exploration and development option is no longer considered a material operating segment and has been reclassified to be included as part of Group and unallocated items/eliminations.

(2) On 29 April 2022, the Group acquired a further 18.2 per cent interest in Mineração Rio do Norte (MRN). Refer to note 31 Acquisition of equity accounted investments.

(3) On 6 January 2022, the Group announced its decision to participate in a restart of the Alumar aluminium smelter (Brazil Aluminium). First production commenced in the June 2022 quarter and Brazil Aluminium is considered a material operating segment.

(4) On 22 February 2022, the Group acquired a 45 per cent interest in Sierra Gorda Sociedad Contractual Minera (Sierra Gorda). Refer to note 31 Acquisition of equity accounted investments.

(5) On 1 June 2021, the Group completed the sale of its shareholding in SAEC to a wholly-owned subsidiary of Seriti Resources Holdings Pty Ltd (Seriti) and two trusts for the benefit of employees and communities. Refer to note 33 Discontinued operation.

All operations are operated by the Group except Brazil Alumina, Brazil Aluminium and Sierra Gorda.

(b) Segment results

Segment performance is measured by Underlying EBIT and Underlying EBITDA. Underlying EBIT is profit before net finance costs, tax and other earnings adjustment items including impairments. Underlying EBITDA is Underlying EBIT before depreciation and amortisation. A reconciliation of Underlying EBIT, Underlying EBITDA and the Group's consolidated profit after tax is set out on the following pages.

In FY22, following the acquisition of the Sierra Gorda operation, the Group has refined its definitions for Underlying EBIT and Underlying EBITDA to exclude fair value gains/(losses) on contingent consideration payable related to a business combination or an asset acquisition. There were no such transactions recorded in the comparative period, and as such the comparative period was not adjusted.

The Group separately discloses sales of group production from sales of third-party products and services because of the significant difference in profit margin earned on these sales.

It is the Group's policy that inter-segment transactions are made on a commercial basis.

Group and unallocated items/eliminations represent group centre functions and consolidation adjustments. Group financing (including finance expenses and finance income) and income taxes are managed on a Group basis and are not allocated to continuing operating segments.

Total assets and liabilities for each operating segment represent operating assets and liabilities which predominantly exclude the carrying amount of non-material equity accounted investments, cash, interest bearing liabilities, tax balances and certain other financial assets and liabilities.

4. Segment information continued

(b) Segment results continued

Revenue recognition

Revenue is measured based on the consideration specified in the contract with a customer and excludes amounts collected on behalf of third parties. Revenue is not reduced for royalties and other taxes payable from group production.

The following is a description of the principal activities from which the Group generates its revenue:

Revenue from the sale of commodities

The Group primarily sells the following commodities: alumina, aluminium, copper, silver, lead, zinc, ferronickel, metallurgical coal and manganese ore. The sales of these commodities are considered to be performance obligations as they are the contractual promises by the Group to transfer distinct goods to customers.

The transaction price allocated to each performance obligation is recognised as the performance obligation is satisfied. Satisfaction occurs when control of the promised commodity is transferred to the customer.

For the sale of commodities, revenue is therefore recognised at a point in time, net of treatment and refining charges (where applicable). The majority of the Group's sales agreements specify that title passes on the bill of lading date (the date the commodity is delivered to the shipping agent) and is assessed to be the point of time in which control over the commodity passes to the customer. For these sales, revenue is recognised on the bill of lading date. For certain sales, title passes and revenue is recognised when the goods have been delivered to the customer.

For certain commodities, the sales price is determined on a provisional basis at the date of sale and adjustments to the sales price subsequently occur based on movements in quoted market or contractual prices up to the date of final pricing. The period between provisional invoicing and final pricing is up to 180 days. Revenue on provisionally priced sales is recognised based on the estimated fair value of the total consideration receivable. The revenue adjustment mechanism embedded within provisionally priced sales arrangements has the characteristics of a commodity derivative. Accordingly, the fair value of the final sales price adjustment is re-estimated continuously and changes in fair value are disclosed separately as 'other' revenue. In all cases, fair value is estimated by reference to forward market prices.

Revenue from the provision of freight services

The Group sells most of its commodities on either Free On Board (FOB) or Cost, Insurance, and Freight (CIF) Incoterms. In the case of CIF Incoterms, the Group is responsible for shipping services after the date at which control of the commodities passes to the customer at the port of loading. The provision of shipping services in these types of arrangements are a distinct service (and therefore a separate performance obligation) to which a portion of the transaction price should be allocated and recognised over time as the shipping services are provided. The Group also provides third party freight services which are recognised as the shipping service is provided.

The Group does not disclose sales revenue from freight services separately as it does not consider this necessary in order to understand the impact of economic factors on the Group.

Notes to financial statements – Results for the year continued

4. Segment information continued

(b) Segment results continued

FY22 US\$M	Worsley Alumina	Brazil Alumina	Brazil Aluminium	Hillside Aluminium
Revenue from customers	1,626	522	-	2,257
Other ⁽²⁾	(1)	2	-	(3)
Total underlying revenue	1,625	524	-	2,254
Comprising:				
Group production	818	523	-	2,254
Third party products and services ⁽³⁾	-	-	-	-
Inter-segment revenue	807	1	-	-
Total underlying revenue	1,625	524	-	2,254
Underlying EBITDA	571	150	(43)	730
Underlying depreciation and amortisation	(185)	(61)	(1)	(64)
Underlying EBIT	386	89	(44)	666
Comprising:				
Group production	386	92	(44)	666
Exploration expensed	-	-	-	-
Third party products and services ⁽³⁾	-	-	-	-
Share of profit/(loss) of equity accounted investments	-	(3)	-	-
Underlying EBIT	386	89	(44)	666
Underlying net finance costs				
Underlying income tax (expense)/benefit				
Underlying royalty related tax (expense)/benefit				
Underlying earnings				
Total adjustments to profit/(loss) ⁽⁴⁾				
Profit/(loss) for the year				
Underlying exploration expenditure	-	-	-	-
Underlying capital expenditure⁽⁵⁾	55	51	1	24
Underlying equity accounted investments	-	40	-	-
Total underlying assets⁽⁶⁾	3,571	805	67	1,284
Total underlying liabilities⁽⁶⁾	1,000	109	21	357

(1) The segment information reflects the Group's interest in material equity accounted joint ventures and is presented on a proportional consolidation basis, which is the measure used by the Group's management to assess their performance. This includes the proportional elimination of revenue and corresponding expenses relating to freight services provided by the Group to these joint ventures of US\$187 million and third party product revenue of US\$40 million included in Group and unallocated items/eliminations. Refer to note 4(b)(i) Underlying results reconciliation for the joint venture adjustments that reconcile the underlying proportional consolidation to the statutory equity accounting positions included in the Group's consolidated financial statements.

(2) Underlying other revenue predominantly relates to fair value movements on provisionally priced contracts.

(3) Underlying revenue on third party products and services sold from continuing operations comprises US\$110 million for aluminium, US\$25 million for alumina, US\$115 million for coal, US\$40 million for manganese, US\$145 million for freight services and US\$165 million for raw materials. Underlying EBIT on third party products and services sold from continuing operations comprises US\$8 million for aluminium, US\$8 million for alumina, US\$7 million for coal and US\$(3) million for freight services.

(4) Refer to note 4(b)(i) Underlying results reconciliation for further details.

(5) Underlying capital expenditure excludes the purchase of intangibles and capitalised exploration expenditure.

(6) Total underlying assets and liabilities for each operating segment represent assets and liabilities which predominantly exclude the carrying amount of non-material equity accounted investments, cash, interest bearing liabilities, tax balances and certain other financial assets and liabilities.

Continuing operations

Mozal Aluminium	Sierra Gorda ⁽¹⁾	Cannington	Hermosa	Cerro Matoso	Illawarra Metallurgical Coal	Australia Manganese ⁽¹⁾	South Africa Manganese ⁽¹⁾	Group and unallocated items/ eliminations	Group underlying results ⁽¹⁾
925	280	771	-	927	2,336	833	418	(205)	10,690
(1)	(39)	(35)	-	2	2	15	1	(3)	(60)
924	241	736	-	929	2,338	848	419	(208)	10,630
924	241	736	-	929	2,338	848	419	-	10,030
-	-	-	-	-	-	-	-	600	600
-	-	-	-	-	-	-	-	(808)	-
924	241	736	-	929	2,338	848	419	(208)	10,630
305	133	388	(12)	529	1,507	488	78	(69)	4,755
(34)	(58)	(73)	(2)	(66)	(119)	(86)	(20)	(19)	(788)
271	75	315	(14)	463	1,388	402	58	(88)	3,967
271	76	317	(14)	463	1,396	402	59	(82)	3,988
-	(1)	(2)	-	-	(9)	-	(1)	(26)	(39)
-	-	-	-	-	-	-	-	20	20
-	-	-	-	-	1	-	-	-	(2)
271	75	315	(14)	463	1,388	402	58	(88)	3,967
									(155)
									(1,151)
									(59)
									2,602
									67
									2,669
-	2	3	19	-	11	1	1	37	74
11	81	45	97	37	189	62	19	12	684
-	-	-	-	-	2	-	-	-	42
764	1,614	555	2,098	592	1,277	645	331	3,666	17,269
149	212	414	67	243	491	387	196	2,844	6,490

Notes to financial statements – Results for the year continued

4. Segment information continued

(b) Segment results continued

FY21 Restated⁽¹⁾⁽²⁾⁽³⁾⁽⁴⁾

US\$M	Worsley Alumina	Brazil Alumina	Brazil Aluminium	Hillside Aluminium	Mozal Aluminium
Revenue from customers	1,174	400	-	1,507	577
Other ⁽⁶⁾	(1)	-	-	4	1
Total underlying revenue	1,173	400	-	1,511	578
Comprising:					
Group production	605	400	-	1,511	578
Third party products and services ⁽⁷⁾	-	-	-	-	-
Inter-segment revenue	568	-	-	-	-
Total underlying revenue	1,173	400	-	1,511	578
Underlying EBITDA	318	117	(3)	358	132
Underlying depreciation and amortisation	(175)	(51)	-	(65)	(34)
Underlying EBIT	143	66	(3)	293	98
Comprising:					
Group production	143	66	(3)	293	98
Exploration expensed	-	-	-	-	-
Third party products and services ⁽⁷⁾	-	-	-	-	-
Share of profit/(loss) of equity accounted investments	-	-	-	-	-
Underlying EBIT	143	66	(3)	293	98
Underlying net finance costs					
Underlying income tax (expense)/benefit					
Underlying royalty related tax (expense)/benefit					
Underlying earnings					
Total adjustments to profit/(loss) ⁽⁸⁾					
Profit/(loss) for the year					
Underlying exploration expenditure	-	-	-	-	-
Underlying capital expenditure⁽⁹⁾	55	25	-	17	11
Underlying equity accounted investments	-	-	-	-	-
Total underlying assets⁽¹⁰⁾	3,674	639	8	1,156	579
Total underlying liabilities⁽¹⁰⁾	1,007	69	7	423	123

(1) The Brazil Alumina operating segment has been reclassified to separate Brazil Aluminium for consistency with the current year's presentation.

(2) During the current financial reporting period the internal reporting of the Group's consolidated financial results was changed. The segment information reflects the Group's interest in material equity accounted joint ventures and is presented on a proportional consolidation basis, which is the measure used by the Group's management to assess their performance. This includes the proportional elimination of revenue and corresponding expenses relating to freight services provided by the Group to these joint ventures of US\$111 million and third party product revenue of US\$35 million included in Group and unallocated items/eliminations. Refer to note 4(b)(i) Underlying results reconciliation for the joint venture adjustments that reconcile the underlying proportional consolidation to the statutory equity accounting positions included in the Group's consolidated financial statements.

(3) The Eagle Downs Metallurgical Coal operating segment has been reclassified to be included as part of Group and unallocated items/eliminations for consistency with the current year's presentation.

(4) Underlying income tax (expense)/benefit has been reclassified to separate underlying royalty related tax (expense)/benefit for consistency with the current year's presentation.

(5) Refer to note 33 Discontinued operation.

(6) Underlying other revenue predominantly relates to fair value movements on provisionally priced contracts.

(7) Underlying revenue on third party products and services sold from continuing operations comprises US\$43 million for aluminium, US\$10 million for alumina, US\$23 million for coal, US\$35 million for manganese, US\$95 million for freight services and US\$92 million for raw materials. Underlying EBIT on third party products and services sold from continuing operations comprises US\$8 million for aluminium, US\$1 million for coal and US\$1 million for raw materials.

(8) Refer to note 4(b)(i) Underlying results reconciliation for further details.

(9) Underlying capital expenditure excludes the purchase of intangibles and capitalised exploration expenditure.

(10) Total underlying assets and liabilities for each operating segment represent assets and liabilities which predominantly exclude the carrying amount of non-material equity accounted investments, cash, interest bearing liabilities, tax balances and certain other financial assets and liabilities.

Continuing operations								Discontinued operation ⁽²⁾	
Cannington	Hermosa	Cerro Matoso	Illawarra Metallurgical Coal	Australia Manganese ⁽²⁾	South Africa Manganese ⁽²⁾	Group and unallocated items/ eliminations	Group underlying results from continuing operations	South Africa Energy Coal	Group underlying results ⁽²⁾
746	-	479	748	729	337	(275)	6,422	862	7,284
11	-	14	10	1	-	-	40	(1)	39
757	-	493	758	730	337	(275)	6,462	861	7,323
757	-	493	758	730	332	-	6,164	735	6,899
-	-	-	-	-	-	298	298	126	424
-	-	-	-	-	5	(573)	-	-	-
757	-	493	758	730	337	(275)	6,462	861	7,323
416	(6)	197	94	385	64	(93)	1,979	(123)	1,856
(66)	(2)	(75)	(197)	(81)	(16)	(28)	(790)	(27)	(817)
350	(8)	122	(103)	304	48	(121)	1,189	(150)	1,039
352	(8)	122	(97)	305	49	(113)	1,207	(153)	1,054
(2)	-	-	(5)	(1)	(1)	(18)	(27)	-	(27)
-	-	-	-	-	-	10	10	11	21
-	-	-	(1)	-	-	-	(1)	(8)	(9)
350	(8)	122	(103)	304	48	(121)	1,189	(150)	1,039
							(127)	(43)	(170)
							(326)	(1)	(327)
							(53)	-	(53)
							683	(194)	489
							(541)	(143)	(684)
							142	(337)	(195)
2	16	-	14	2	1	22	57	-	57
43	64	45	188	55	15	12	530	76	606
-	-	-	2	-	-	-	2	-	2
510	1,972	629	997	604	337	2,549	13,654	-	13,654
315	47	224	385	361	185	1,554	4,700	-	4,700

Notes to financial statements – Results for the year continued

4. Segment information continued

(b) Segment results continued

(i) Underlying results reconciliation

The following tables reconcile the underlying segment information to the statutory information included in the Group's consolidated financial statements:

FY22 US\$M	Continuing operations
Underlying EBIT	3,967
Significant items ⁽¹⁾	77
Sierra Gorda joint venture adjustments ⁽²⁾⁽³⁾	(44)
Manganese joint venture adjustments ⁽²⁾⁽⁴⁾	(216)
Gains/(losses) on the consolidation of interests in operations ⁽⁵⁾	9
Exchange rate gains/(losses) on restatement of monetary items ⁽⁶⁾	50
Net impairment (loss)/reversal of financial assets ⁽⁶⁾⁽⁷⁾	(26)
Net impairment (loss)/reversal of non-financial assets ⁽⁶⁾⁽⁸⁾	(145)
Gains/(losses) on non-trading derivative instruments, contingent consideration and other investments measured at FVTPL ⁽⁶⁾⁽⁹⁾	52
Profit/(loss) from operations	3,724
Underlying net finance costs	(155)
Sierra Gorda joint venture adjustments ⁽²⁾	62
Manganese joint venture adjustments ⁽²⁾	22
Exchange rate variations on net debt	40
Net finance costs	(31)
Underlying income tax (expense)/benefit	(1,151)
Underlying royalty related tax (expense)/benefit	(59)
Tax effect of significant items ⁽¹⁾	(26)
Sierra Gorda joint venture adjustments relating to income tax (expense)/benefit ⁽²⁾	1
Sierra Gorda joint venture adjustments relating to royalty related tax (expense)/benefit ⁽²⁾	4
Manganese joint venture adjustments relating to income tax (expense)/benefit ⁽²⁾	153
Manganese joint venture adjustments relating to royalty related tax (expense)/benefit ⁽²⁾	55
Tax effect of other adjustments to Underlying EBIT	32
Tax effect of other adjustments to Underlying net finance costs	(13)
Exchange rate variations on tax balances	(20)
Income tax (expense)/benefit	(1,024)

(1) Refer to note 4(b)(ii) Significant items.

(2) The segment information reflects the Group's interest in material equity accounted joint ventures and is presented on a proportional consolidation basis, which is the measure used by the Group's management to assess their performance. Joint venture adjustments reconcile the proportional consolidation to the statutory equity accounting positions, recognised in share of profit/(loss) of equity accounted investments in the Consolidated Income Statement.

(3) The Group's investment in the Sierra Gorda operation is represented by the carrying value of the equity accounted investment of US\$30 million, refer to note 26 Equity accounted investments, and the carrying value of a non-current purchased credit-impaired receivable of US\$1,648 million, refer to note 9 Trade and other receivables. The earnings adjustments include a revaluation gain of US\$26 million relating to the shareholder loan payable that was eliminated from the Group's Underlying EBIT upon proportional consolidation.

(4) Includes earnings adjustments of US\$6 million included in the Australia Manganese segment and US\$8 million included in the South Africa Manganese segment.

(5) Relates to a gain on the acquisition of an additional 16.6 per cent shareholding and related rights in Mozal Aluminium, recognised in other income in the Consolidated Income Statement. Refer to note 30 Acquisition of subsidiaries and joint operations.

(6) Recognised in expenses excluding net finance costs in the Consolidated Income Statement. Refer to note 5 Expenses.

(7) Relates to a US\$26 million impairment of the purchased credit-impaired receivable from Sierra Gorda that was eliminated from the Group's Underlying EBIT upon proportional consolidation. Refer to note 19 Financial assets and financial liabilities.

(8) Relates primarily to a US\$183 million impairment of property, plant and equipment of Eagle Downs Metallurgical Coal included in Group and unallocated items/eliminations and a US\$42 million reversal of previously impaired property, plant and equipment in the Brazil Aluminium Segment. Refer to note 13 Impairment of non-financial assets.

(9) Includes a US\$48 million remeasurement of contingent consideration payable related to the acquisition of Sierra Gorda included in Group and unallocated items/eliminations.

4. Segment information continued

(b) Segment results continued

(i) Underlying results reconciliation continued

FY22 US\$M	Group underlying results from continuing operations	Sierra Gorda joint venture adjustments ⁽¹⁾	Manganese joint venture adjustments ⁽¹⁾	Group statutory results from continuing operations
Total revenue	10,630	(241)	(1,120)	9,269
Depreciation and amortisation	788	(58)	(106)	624
Share of profit/(loss) of equity accounted investments	(2)	30	244	272
Exploration expenditure	74	(2)	(2)	70
Capital expenditure	684	(81)	(81)	522
Equity accounted investments	42	30	398	470
Total assets	17,269	(452)	(481)	16,336
Total liabilities	6,490	(452)	(481)	5,557

(1) The segment information reflects the Group's interest in material equity accounted joint ventures and is presented on a proportional consolidation basis, which is the measure used by the Group's management to assess their performance. Joint venture adjustments reconcile the proportional consolidation to the statutory equity accounting positions included in the Group's consolidated financial statements.

FY21 US\$M	Continuing operations	Discontinued operation ⁽¹⁾	Total
Underlying EBIT	1,189	(150)	1,039
Significant items ⁽²⁾	55	-	55
Manganese joint venture adjustments ⁽³⁾⁽⁴⁾	(210)	-	(210)
Gains/(losses) on the disposal of interests in operations	-	(159)	(159)
Exchange rate gains/(losses) on restatement of monetary items ⁽⁵⁾	(35)	(34)	(69)
Net impairment (loss)/reversal of non-financial assets ⁽⁵⁾⁽⁶⁾	(764)	-	(764)
Gains/(losses) on non-trading derivative instruments, contingent consideration and other investments measured at FVTPL ⁽⁵⁾⁽⁷⁾	(9)	46	37
Major corporate restructures ⁽⁵⁾⁽⁸⁾	(23)	-	(23)
Profit/(loss) from operations	203	(297)	(94)
Underlying net finance costs	(127)	(43)	(170)
Manganese joint venture adjustments ⁽³⁾	18	-	18
Exchange rate variations on net debt	(52)	-	(52)
Net finance costs	(161)	(43)	(204)
Underlying income tax (expense)/benefit	(326)	(1)	(327)
Underlying royalty related tax (expense)/benefit	(53)	-	(53)
Manganese joint venture adjustments relating to income tax (expense)/benefit ⁽³⁾	124	-	124
Manganese joint venture adjustments relating to royalty related tax (expense)/benefit ⁽³⁾	53	-	53
Tax effect of other adjustments to Underlying EBIT	247	-	247
Tax effect of other adjustments to Underlying net finance costs	(7)	-	(7)
Exchange rate variations on tax balances	62	4	66
Income tax (expense)/benefit	100	3	103

(1) Refer to note 33 Discontinued operation.

(2) Refer to note 4(b)(ii) Significant items.

(3) The segment information reflects the Group's interest in material equity accounted joint ventures and is presented on a proportional consolidation basis, which is the measure used by the Group's management to assess their performance. Joint venture adjustments reconcile the proportional consolidation to the statutory equity accounting positions, recognised in share of profit/(loss) of equity accounted investments in the Consolidated Income Statement.

(4) Includes earnings adjustments of US\$(5) million included in the Australia Manganese segment and US\$(10) million included in the South Africa Manganese segment.

(5) Recognised in expenses excluding net finance costs in the Consolidated Income Statement. Refer to note 5 Expenses.

(6) Relates to a US\$728 million impairment of property plant and equipment in the IMC segment and a US\$36 million impairment of intangible assets included in Group and unallocated items/eliminations. Impairment losses exclude a US\$8 million impairment of right-of-use (ROU) lease assets included in major corporate restructures.

(7) Primarily relates to US\$(8) million included in the Hillside Aluminium segment.

(8) The major corporate restructure costs primarily relate to the simplification of the Group's functional structures and office footprint and are included in Group and unallocated items/eliminations.

Notes to financial statements – Results for the year continued

4. Segment information continued

(b) Segment results continued

(i) Underlying results reconciliation continued

FY21 US\$M	Group underlying results from continuing operations	Manganese joint venture adjustments ⁽¹⁾	Group statutory results from continuing operations
Total revenue	6,462	(986)	5,476
Depreciation and amortisation	790	(97)	693
Share of profit/(loss) of equity accounted investments	(1)	142	141
Exploration expenditure	57	(3)	54
Capital expenditure	530	(70)	460
Equity accounted investments	2	378	380
Total assets	13,654	(412)	13,242
Total liabilities	4,700	(412)	4,288

(1) The segment information reflects the Group's interest in material equity accounted joint ventures and is presented on a proportional consolidation basis, which is the measure used by the Group's management to assess their performance. Joint venture adjustments reconcile the proportional consolidation to the statutory equity accounting positions included in the Group's consolidated financial statements.

(ii) Significant items

Significant items are those items, not separately identified in note 4(b)(i) Underlying results reconciliation, where their nature and amount are considered material to the Group's consolidated financial statements.

FY22 US\$M	Gross	Tax	Net
Recognition of indirect tax assets	77	(26)	51
Total significant items	77	(26)	51

Following the Group's decision to participate in a restart of Brazil Aluminium, the Group recognised indirect tax assets of US\$77 million that were previously expensed since the smelter was placed on care and maintenance in 2015. The recognition of the indirect tax assets has resulted in a significant one-off amount of US\$77 million (US\$51 million post tax) recorded as other income in the Consolidated Income Statement.

FY21 US\$M	Gross	Tax	Net
Disposal of royalties	55	-	55
Total significant items	55	-	55

The Group divested four royalties to a wholly owned subsidiary of the Elemental Royalties Corporation for US\$55 million, which comprises US\$40 million in upfront cash and US\$15 million in equity. These royalties were recognised as intangible assets with a US\$nil carrying value. The transaction completed on 9 February 2021 and the Group recognised other income of US\$55 million (US\$55 million post tax) in the Consolidated Income Statement and was included in Group and unallocated items/eliminations.

4. Segment information continued

(c) Geographical information

The geographical information below analyses statutory Group revenue and non-current assets by location. Revenue is primarily presented by the geographical destination of the product and non-current assets are presented by the geographical location of the operations.

US\$M	Revenue from external customers		Non-current assets	
	FY22	FY21 ⁽¹⁾	FY22	FY21
Australia	1,013	452	5,099	5,232
China	776	612	-	-
India	581	332	-	-
Japan	523	291	-	-
Middle East	283	238	-	-
Mozambique	458	292	497	385
Netherlands	1,255	705	1,648	-
Russia	44	63	-	-
South Africa	633	417	933	986
South America	156	133	1,172	1,092
South Korea	692	516	-	-
United States of America	439	301	2,185	2,049
Rest of Asia	967	452	102	106
Rest of Europe	1,079	444	1	1
Rest of North America	278	169	1	-
Rest of Oceania	92	59	-	-
Unallocated assets ⁽²⁾	-	-	458	469
Total	9,269	5,476	12,096	10,320

(1) Revenue from external customers comprises revenue from continuing operations of US\$5,476 million and excludes revenue from a discontinued operation of US\$861 million. Refer to note 33 Discontinued operation.

(2) Comprises other financial assets and deferred tax assets.

5. Expenses

US\$M	Note	FY22	FY21
Changes in inventories of finished goods and work in progress		(133)	(72)
Raw materials and consumables used		2,309	1,771
Wages, salaries and redundancies		657	683
Pension and other post-retirement obligations		60	61
External services (including transportation)		1,111	905
Third party commodity purchases		718	351
Depreciation and amortisation		624	693
Exchange rate (gains)/losses on restatement of monetary items		(50)	35
(Gains)/losses on derivative instruments, contingent consideration and other investments measured at FVTPL		(29)	7
Government and other royalties paid and payable		295	160
Exploration expenditure incurred and expensed		37	25
Net impairment loss/(reversal) of financial assets	19	26	-
Net impairment loss/(reversal) of non-financial assets	13	145	772
Lease rentals ⁽¹⁾		77	51
All other operating expenses		153	129
Total expenses		6,000	5,571

(1) Includes short-term, low-value and variable lease rentals.

Notes to financial statements – Results for the year continued

6. Tax

Income tax expense comprises current and deferred tax and is recognised in the Consolidated Income Statement except to the extent that it relates to items recognised directly in the Consolidated Statement of Comprehensive Income.

(a) Income tax expense

US\$M	FY22	FY21
Current income tax (expense)/benefit	(1,006)	(196)
Deferred income tax (expense)/benefit	(18)	299
Total income tax (expense)/benefit	(1,024)	103
Income tax expense attributable to:		
Continuing operations	(1,024)	100
Discontinued operation ⁽¹⁾	-	3
Total income tax (expense)/benefit	(1,024)	103

(1) Refer to note 33 Discontinued operation.

Income tax (expense)/benefit

Income tax (expense)/benefit for the period is the tax payable on the current period's taxable income/(loss) based on the applicable income tax rate for each jurisdiction adjusted for changes in deferred tax assets and liabilities attributable to temporary differences and unused tax losses. Current tax is calculated using the tax rates enacted or substantively enacted at period end and includes any adjustment to tax payable in respect of previous years.

(b) Reconciliation of prima facie tax expense to income tax expense

US\$M	FY22	FY21
Profit/(loss) before tax from continuing operations	3,693	42
Profit/(loss) before tax from a discontinued operation ⁽¹⁾	-	(340)
Deduct: Profit/(loss) from equity accounted investments included in continuing operations	272	141
Deduct: Profit/(loss) from equity accounted investments included in a discontinued operation ⁽¹⁾	-	(8)
Profit/(loss) subject to tax	3,421	(431)
Income tax on profit/(loss) calculated at 30 per cent	(1,026)	129
Tax rate differential on non-Australian income	72	5
Exchange variations and other translation adjustments	(20)	66
Withholding tax on distributed earnings	(54)	(3)
Derecognition of future tax benefits	(7)	(108)
Change in tax rates	(3)	-
Prior year adjustments	(5)	10
Other	19	4
Total income tax (expense)/benefit	(1,024)	103

(1) Refer to note 33 Discontinued operation.

Profit from equity accounted investments has been taxed in companies other than South32 Limited, being the companies whose results are disclosed as equity accounted investments in the consolidated financial statements.

Refer to note 26 Equity accounted investments for further details of the Group's equity accounted investments.

6. Tax continued

(c) Movement in deferred tax balances

The composition of the Group's net deferred tax assets and liabilities recognised in the Consolidated Balance Sheet and the deferred tax expense (charged)/credited to the Consolidated Income Statement is as follows:

US\$M	Deferred tax assets		Deferred tax liabilities		Deferred tax (charged)/credited to the Consolidated Income Statement	
	FY22	FY21	FY22	FY21	FY22	FY21 ⁽¹⁾
Type of temporary difference						
Depreciation	295	321	305	302	(29)	316
Employee benefits	49	53	(11)	(12)	(3)	15
Closure and rehabilitation	208	182	(51)	(49)	27	2
Other provisions	-	3	(13)	(14)	(4)	4
Deferred charges	(60)	(67)	-	-	7	(73)
Non tax-depreciable fair value adjustments, revaluations and mineral rights	(94)	(123)	12	29	29	1
Tax-effected losses	6	2	(7)	(11)	-	(4)
Brazil deferral incentive ⁽²⁾	-	-	64	56	(8)	(14)
Leases	-	10	(1)	(2)	(10)	24
Other	(10)	(33)	9	(34)	(27)	28
Total	394	348	307	265	(18)	299

(1) Includes deferred tax expense (charged)/credited to the Consolidated Income Statement relating to a discontinued operation of US\$6 million. Refer to note 33 Discontinued operation.

(2) Our Brazilian subsidiary has received a 75 per cent corporate income tax deferral due to reinvestment of capital in the North East regions. The tax is deferred until earnings are repatriated from Brazil.

Deferred tax is provided using the balance sheet liability method, providing for the tax effect of temporary differences between the carrying amount of assets and liabilities for financial reporting purposes and the amounts used for tax assessment or deduction purposes. The tax effect of certain temporary differences is not recognised, principally with respect to:

- Temporary differences arising on the initial recognition of assets or liabilities (other than those arising in a business combination or in a manner that initially impacted accounting or taxable profit);
- Temporary differences relating to investments and undistributed earnings in subsidiaries, joint ventures and associates to the extent that the Group is able to control its reversal and it is probable that it will not reverse in the foreseeable future; and
- Goodwill.

To the extent that an item's tax base is solely derived from the amount deductible under capital gains tax legislation, deferred tax is determined as if such amounts are not deductible in determining future assessable income.

A deferred tax asset is recognised only to the extent that it is probable that future taxable profits will be available against which the asset can be utilised. Deferred tax assets are reviewed at each balance sheet date and amended to the extent that it is no longer probable that the related tax benefit will be realised. Deferred tax assets and liabilities are offset when they relate to income taxes levied by the same tax authority and the Group has both the right and the intention to settle its current tax assets and liabilities on a net or simultaneous basis.

(d) Unrecognised deferred tax assets and liabilities

The composition of the Group's unrecognised deferred tax assets and liabilities is as follows:

US\$M	FY22	FY21
Unrecognised deferred tax assets		
Tax-effected losses ⁽¹⁾	21	8
Mineral rights	589	588
Impairment of investments in subsidiaries	945	978
Closure and rehabilitation	50	57
Depreciable assets	8	8
Total unrecognised deferred tax assets	1,613	1,639
Unrecognised deferred tax liabilities		
Taxable temporary differences associated with investments and undistributed earnings in subsidiaries	39	39
Total unrecognised deferred tax liabilities	39	39

(1) Represents tax losses that have no expiry.

6. Tax continued

(e) Tax consolidation

South32 Limited and its 100 per cent owned Australian resident subsidiaries have formed a tax consolidated group with effect from 25 May 2015. South32 Limited is the head entity of the tax consolidated group. Members of the group have entered into a tax sharing agreement in order to allocate income tax expense to the wholly-owned subsidiaries on a stand-alone basis. The tax sharing arrangement provides for the allocation of income tax liabilities between the entities should the head entity default on its tax payment obligations. The possibility of such a default is considered remote at the date of this report.

Members of the tax consolidated group have also entered into a tax funding agreement. The group has applied its allocation approach in determining the appropriate amount of current taxes to allocate to members of the tax consolidated group. The tax funding agreement provides for each member of the tax consolidated group to pay or receive a tax equivalent amount to or from the head entity in accordance with their notional current tax liability or current tax asset. Such amounts are reflected in amounts receivable from or payable to the head entity in their accounts and are settled as soon as practicable after lodgement of the consolidated return and payment of the tax liability.

(f) Tax transparency report

More detail of the Group's tax outcomes, including country-by-country reporting is included in the 2022 Tax Transparency and Payments to Governments Report.

Key estimates, assumptions and judgements

Deferred tax

Judgement is required in assessing whether deferred tax assets and certain deferred tax liabilities are recognised in the Consolidated Balance Sheet. Deferred tax assets are recognised only where it is considered more likely than not that they will be recovered, which is dependent on the generation of sufficient future taxable profits. Deferred tax liabilities arising from temporary differences in investments, caused principally by retained earnings held in foreign tax jurisdictions, are recognised unless repatriation of retained earnings can be controlled and are not expected to occur in the foreseeable future.

Assumptions about the generation of future taxable profits and repatriation of retained earnings depend on management's estimates of future cash flows. These depend on estimates of future production and sales volumes, commodity prices, climate change-related impacts, reserves, operating costs, closure and rehabilitation costs, capital expenditure, dividends and other capital management transactions.

Uncertain tax matters

Judgements are required about the application of the inherently complex income tax legislation in Colombia, Brazil and South Africa. These judgements are subject to risk and uncertainty, hence there is a possibility that changes in circumstances will alter expectations, which may impact the amount of deferred tax assets and deferred tax liabilities recognised in the Consolidated Balance Sheet and the amount of other tax losses and temporary differences not yet recognised.

Where the final tax outcomes are different from the amounts that were initially recorded, these differences impact the current and deferred tax provisions in the period in which the determination is made. Measurement of uncertain tax and royalty matters considers a range of possible outcomes, including assessments received from tax authorities. Where management is of the view that potential liabilities have a low probability of crystallising, or it is not possible to quantify them reliably, they are disclosed as contingent liabilities.

7. Dividends

US\$M	FY22	FY21
Prior year final dividend ⁽¹⁾	163	48.5
Prior year special dividend ⁽¹⁾	93	-
Interim dividend ⁽²⁾	404	66.5
Total dividends declared and paid during the year	660	115

(1) On 19 August 2021, the Directors resolved to pay a fully-franked final dividend of US 3.5 cents per share (US\$164 million) and a fully-franked special dividend of US 2.0 cents per share (US\$93 million) in respect of the 2021 financial year. The dividends were paid on 7 October 2021. In addition to the ESOP Trusts receiving dividends from South32 Limited, a total of 9,736,166 shares were bought back between the declaration and the ex-dividend dates, therefore reducing the dividends paid externally to US\$256 million.

(2) On 17 February 2022, the Directors resolved to pay a fully-franked interim dividend of US 8.7 cents per share (US\$405 million) in respect of the 2022 financial half year. The dividend was paid on 7 April 2022. In addition to the ESOP Trusts receiving dividends from South32 Limited, a total of 2,691,419 shares were bought back between the declaration and the ex-dividend dates, therefore reducing the dividend paid externally to US\$404 million.

Franking Account

US\$M	FY22	FY21
Franking credits at the beginning of the financial year	329	268
Credits arising from tax paid/payable by South32 Limited ⁽¹⁾	555	47
Credits arising from the receipt of franked dividends	71	63
Utilisation of credits arising from the payment of franked dividends	(266)	(49)
Total franking credits available at the end of the financial year⁽²⁾	689	329

(1) Includes the Australian FY22 liability of US\$68 million and refunds of US\$2 million in relation to prior year amendments lodged with the Australian Taxation Office.

(2) The payment of the final franked FY22 dividend declared after 30 June 2022 will decrease the franking account balance by US\$337 million. Refer to note 34 Subsequent events.

8. Earnings per share

Basic earnings per share (EPS) amounts are calculated based on profit or loss attributable to equity holders of South32 Limited and the weighted average number of shares outstanding during the year.

Dilutive EPS amounts are calculated based on profit or loss attributable to equity holders of South32 Limited and the weighted average number of shares outstanding after adjustment for the effects of all dilutive potential shares.

The following reflects the profit/(loss) and share data used in the basic and diluted EPS computations:

Profit/(loss) attributable to equity holders

US\$M	FY22	FY21
Continuing operations	2,669	142
Discontinued operation ⁽¹⁾	-	(337)
Profit/(loss) attributable to equity holders of South32 Limited (basic)	2,669	(195)
Profit/(loss) attributable to equity holders of South32 Limited (diluted)	2,669	(195)

(1) Refer to note 33 Discontinued operation.

Weighted average number of shares

Million	FY22	FY21
Basic EPS denominator ⁽¹⁾	4,647	4,771
Shares contingently issuable under employee share ownership plans	32	14
Diluted EPS denominator	4,679	4,785

(1) The basic EPS denominator is the aggregate of the weighted average number of shares after deduction of the weighted average number of treasury shares outstanding and shares permanently cancelled through the on-market share buy-back program.

Earnings per share

US cents	FY22	FY21
Continuing operations		
Basic EPS	57.4	3.0
Diluted EPS	57.0	3.0
Attributable to ordinary equity holders of South32 Limited		
Basic EPS	57.4	(4.1)
Diluted EPS	57.0	(4.1)

Notes to financial statements – Operating assets and liabilities

This section shows the assets used to generate the Group's trading performance and the liabilities incurred. Assets and liabilities relating to the Group's financing activities are addressed in the capital structure and financing section, notes 16 to 20.

9. Trade and other receivables

US\$M	FY22	FY21
Current		
Trade receivables	643	433
Loans to equity accounted investments ⁽¹⁾	7	10
Other receivables	194	84
Total current trade and other receivables⁽²⁾	844	527
Non-current		
Loans to equity accounted investments ⁽¹⁾⁽³⁾	1,793	187
Other receivables	110	72
Total non-current trade and other receivables⁽²⁾	1,903	259

(1) Refer to note 29 Related party transactions.

(2) Net of allowances for expected credit losses of US\$2 million (FY21: US\$2 million).

(3) Includes a purchased credit-impaired receivable of US\$1,648 million (FY21: US\$nil). Refer to note 19 Financial assets and financial liabilities.

Trade receivables generally have terms of up to 30 days. Trade and other receivables which are not held at FVTPL are recognised initially at fair value and subsequently at amortised cost using the effective interest method, less an allowance for expected credit losses.

10. Inventories

US\$M	FY22	FY21
Current		
Raw materials and consumables	455	323
Work in progress	338	236
Finished goods	189	157
Total current inventories	982	716
Non-current		
Raw materials and consumables	55	52
Work in progress	21	22
Total non-current inventories	76	74

Inventories carried at net realisable value as at 30 June 2022 was US\$31 million (FY21: US\$17 million). Inventory write-downs of US\$17 million (FY21: US\$42 million) were recognised in the year.

Inventories are valued at the lower of cost and net realisable value. Cost is determined primarily on the basis of average cost. For processed inventories, cost is derived on an absorption costing basis. Cost comprises the cost of purchasing raw materials and the cost of production, including attributable overheads. In respect of minerals inventory, quantities are assessed primarily through surveys and assays.

11. Property, plant and equipment

FY22 US\$M	Land and buildings		Plant and equipment		Other mineral assets	Assets under construction	Exploration and evaluation	Total
	ROU lease assets	Other	ROU lease assets	Other				
Cost								
At the beginning of the financial year	50	2,299	906	13,061	4,468	594	153	21,531
Additions	9	-	57	152	-	547	59	824
Acquisition of subsidiaries and joint operations ⁽¹⁾	-	22	1	95	-	5	-	123
Foreign exchange movements in closure and rehabilitation provisions ⁽²⁾	-	-	-	(127)	-	-	-	(127)
Disposals	(22)	(2)	(21)	(171)	(25)	-	-	(241)
Transfers and other movements	-	33	-	194	104	(331)	-	-
At the end of the financial year	37	2,352	943	13,204	4,547	815	212	22,110
Accumulated depreciation and impairments								
At the beginning of the financial year	28	1,396	274	9,001	1,894	-	-	12,593
Depreciation charge for the year	7	67	51	415	79	-	-	619
Net impairments for the year ⁽³⁾	-	(15)	7	(17)	102	51	13	141
Disposals	(20)	(2)	(17)	(167)	(25)	-	-	(231)
Transfers and other movements	-	(8)	1	7	-	-	-	-
At the end of the financial year	15	1,438	316	9,239	2,050	51	13	13,122
Net book value at 30 June 2022⁽⁴⁾	22	914	627	3,965	2,497	764	199	8,988

(1) Refer to note 30 Acquisition of subsidiaries and joint operations.

(2) Refer to note 15 Provisions.

(3) Refer to note 13 Impairment of non-financial assets.

(4) Includes US\$77 million of land and buildings, US\$37 million of plant and equipment, US\$1,629 million of other mineral assets, US\$230 million of assets under construction and US\$122 million of exploration and evaluation related expenditure that relates to the Hermosa project.

Capital expenditure commitments as at 30 June 2022 were US\$114 million (FY21: US\$83 million).

FY21 US\$M	Land and buildings		Plant and equipment		Other mineral assets	Assets under construction	Exploration and evaluation	Total
	ROU lease assets	Other	ROU lease assets	Other				
Cost								
At the beginning of the financial year	51	2,736	905	15,196	4,687	764	81	24,420
Additions	3	-	24	506	-	500	62	1,095
Foreign exchange movements in closure and rehabilitation provisions ⁽¹⁾	-	-	-	238	-	-	-	238
Disposals	(4)	(5)	(20)	(104)	(42)	-	-	(175)
Disposal of a discontinued operation ⁽²⁾	-	(525)	(3)	(3,082)	(404)	(33)	-	(4,047)
Transfers and other movements	-	93	-	307	227	(637)	10	-
At the end of the financial year	50	2,299	906	13,061	4,468	594	153	21,531
Accumulated depreciation and impairments								
At the beginning of the financial year	13	1,766	241	10,959	1,761	-	-	14,740
Depreciation charge for the year ⁽³⁾	11	71	53	475	100	-	-	710
Net impairments for the year ⁽⁴⁾	8	41	-	394	293	-	-	736
Disposals	(4)	(5)	(17)	(101)	(42)	-	-	(169)
Disposal of a discontinued operation ⁽²⁾	-	(477)	(3)	(2,660)	(284)	-	-	(3,424)
Transfers and other movements	-	-	-	(66)	66	-	-	-
At the end of the financial year	28	1,396	274	9,001	1,894	-	-	12,593
Net book value at 30 June 2021	22	903	632	4,060	2,574	594	153	8,938

(1) Refer to note 15 Provisions.

(2) Refer to note 33 Discontinued operation.

(3) Includes depreciation relating to a discontinued operation of US\$23 million. Refer to note 33 Discontinued operation.

(4) Refer to note 13 Impairment of non-financial assets.

11. Property, plant and equipment continued

(a) Property, plant and equipment

Property, plant and equipment is stated at cost less accumulated depreciation and impairment charges. Cost is the fair value of consideration given to acquire the asset at the time of its acquisition or construction and includes the direct cost of bringing the asset to the location and condition necessary for operation and its estimated future cost of closure and rehabilitation.

(b) Assets under construction

When Ore Reserves are estimated and development of commercial production is approved, capitalised exploration and evaluation expenditure is reclassified to assets under construction. All subsequent development expenditure is capitalised and classified as assets under construction, provided commercial viability conditions continue to be satisfied.

All assets included in assets under construction are reclassified to other categories in property, plant and equipment when the asset is available and ready for use in the location and condition necessary for it to be capable of operating in the manner intended.

(c) Exploration and evaluation expenditure

Exploration is defined as the search for potential mineralisation after the Group has obtained legal rights to explore in a specific area and includes topographical, geological, geochemical and geophysical studies and exploratory drilling, trenching and sampling.

Evaluation is defined as the determination of the technical feasibility and commercial viability of a particular prospect. Activities conducted during the evaluation phase include the determination of the tonnage and grade and/or quality of the deposit, examination and testing of extraction methods and metallurgical or treatment process, surveys of transportation and infrastructure requirements, and market and finance studies.

Exploration and evaluation expenditure (including amortisation of capitalised licence and lease costs) is charged to the Consolidated Income Statement as incurred except in the following circumstances, in which case the expenditure may be capitalised:

- The exploration and evaluation activity is within an area of interest which was previously acquired as an asset acquisition or in a business combination and measured at fair value on acquisition; and
- The existence of a commercially viable mineral deposit has been established as a result of a reasonable prospect for the eventual economic extraction.

In addition, drilling costs incurred at a producing mine for the purpose of improving confidence of the existing resource may be capitalised when the following criteria are satisfied:

- The drilling occurs within the existing physical boundaries of the area defined as the resource; and
- The drilling costs are incurred in resources which are economically recoverable.

Capitalised exploration and evaluation expenditure considered to be a tangible asset is recorded as a component of property, plant and equipment at cost less impairment charges. Otherwise, it is recorded as an intangible asset (such as certain licence and lease arrangements). In determining whether the purchase of an exploration licence or lease is an intangible asset or a component of property, plant and equipment, consideration is given to the substance of the item acquired and not its legal form. Licences or leases purchased which allow exploration over an extended period of time meet the definition of an intangible exploration lease asset where they cannot be reasonably associated with a known Mineral Resource.

(d) Other mineral assets

Other mineral assets comprise:

- Capitalised exploration and evaluation expenditure for areas now in production;
- Development expenditure for areas now in production; and
- Mineral rights acquired.

In underground mines, when production and development activity occur concurrently, development activity is separated from production activity, and is capitalised as development expenditure in other mineral assets. Underground mine development activity includes the cost associated with gaining access to an ore deposit which gives rise to a substantive change in the future productive capacity of the mine.

(e) Leases

At inception of a contract, the Group assesses whether a contract is, or contains, a lease. A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

The Group recognises a ROU asset and a lease liability at the lease commencement date. The ROU asset is initially measured at cost, which comprises the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and estimated future cost of closure or rehabilitation, less any lease incentives received. The ROU asset is subsequently measured at cost less accumulated depreciation, impairment charges and any adjustments for remeasurements of the lease liability.

11. Property, plant and equipment continued

(e) Leases continued

The corresponding lease liability is included within interest bearing liabilities. The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the lessee's incremental borrowing rate. The lessee's incremental borrowing rate is the rate of interest that a lessee would have to pay to borrow over a similar term, and with similar security, the funds necessary to obtain an asset of a similar value to the ROU asset in a similar economic environment.

The lease liability is subsequently measured at amortised cost using the effective interest method. It is remeasured when there is a change in future lease payments arising from a change in a rate or an index, if there is a change in the Group's estimate of the amount expected to be payable under a residual guarantee, or if the Group changes its assessment of whether it will exercise a purchase, extension or termination option. When the lease liability is remeasured, a corresponding adjustment is made to the carrying amount of the ROU asset, or is recorded in the Consolidated Income Statement if the carrying amount of the ROU asset has been reduced to nil.

The nature of the Group's leases predominantly relates to mining equipment and assets supporting the operations in line with the Group's principal activities, as well as real estate in the form of office buildings.

Leased assets are pledged as security for the related lease liabilities.

Short-term, low-value and variable leases

The Group has elected not to recognise ROU assets and lease liabilities for short-term and low-value leases. Short-term leases are leases with a lease term of 12 months or less, while low-value leases are leases where the underlying asset is considered low value. Variable leases are leases with lease payments which are variable but do not depend on a rate or an index. The Group recognises the lease payments associated with these leases as an expense in the Consolidated Income Statement on a straight-line basis over the lease term. If variable leases have a fixed component, these would be recognised in the Consolidated Balance Sheet.

Total cash outflows for lease obligations consist of US\$99 million (FY21: US\$104 million) for lease liabilities recognised in the Consolidated Balance Sheet and US\$77 million (FY21: US\$73 million) for short-term, low-value and variable leases recognised in the Consolidated Income Statement.

(f) Depreciation and amortisation

The carrying amounts of property, plant and equipment are depreciated to their estimated residual values over the estimated useful lives of the specific assets concerned. Estimates of residual values and useful lives are reassessed annually and any change in estimate is taken into account in the determination of remaining depreciation charges. Depreciation commences on the date of commissioning. The major categories of property, plant and equipment are depreciated on a units of production or straight-line basis using the estimated lives indicated below. However, where assets are dedicated to a mine or lease and are not readily transferable, the below useful lives are subject to the lesser of the asset category's useful life and the life of the mine or lease:

Buildings	25 to 40 years straight-line
Land	not depreciated
Plant and equipment	3 to 30 years straight-line
ROU assets	based on the shorter of the useful life or the lease term (straight-line)
Mineral rights	based on Ore Reserves on a units of production basis
Capitalised exploration, evaluation and development expenditure	based on Ore Reserves on a units of production basis

Key estimates, assumptions and judgements

Useful economic lives of assets

The useful lives of our property, plant and equipment are often dependent, either directly or indirectly, on the Reserve Life to which they relate. Changes in economic assumptions used to estimate Ore Reserves, including the Group's expectations with respect to climate change-related risks and opportunities, may impact the estimated useful lives of the specific assets concerned.

Refer to note 2(c) Key estimates, assumptions and judgements for further details regarding climate change-related risks and opportunities, and Ore Reserves as sources of estimation uncertainty.

Notes to financial statements – Operating assets and liabilities continued

12. Intangible assets

FY22 US\$M	Goodwill	Other intangibles	Total
Cost			
At the beginning of the financial year	139	278	417
Additions	-	4	4
Acquisition of subsidiaries and joint operations ⁽¹⁾	-	2	2
At the end of the financial year	139	284	423
Accumulated amortisation and impairments			
At the beginning of the financial year	-	228	228
Amortisation charge for the year	-	5	5
Impairments for the year	-	4	4
At the end of the financial year	-	237	237
Net book value at 30 June 2022	139	47	186

(1) Refer to note 30 Acquisition of subsidiaries and joint operations.

FY21 US\$M	Goodwill	Other intangibles	Total
Cost			
At the beginning of the financial year	193	325	518
Additions	-	1	1
Disposals	-	(28)	(28)
Disposal of a discontinued operation ⁽¹⁾	(54)	(20)	(74)
At the end of the financial year	139	278	417
Accumulated amortisation and impairments			
At the beginning of the financial year	54	216	270
Amortisation charge for the year ⁽²⁾	-	10	10
Disposals	-	(28)	(28)
Disposal of a discontinued operation ⁽¹⁾	(54)	(6)	(60)
Impairments for the year	-	36	36
At the end of the financial year	-	228	228
Net book value at 30 June 2021	139	50	189

(1) Refer to note 33 Discontinued operation.

(2) Includes amortisation relating to a discontinued operation of US\$4 million. Refer to note 33 Discontinued operation.

(a) Goodwill

Where the fair value of consideration paid for a business combination exceeds the fair value of the Group's share of the identifiable net assets acquired, the difference is treated as purchased goodwill. Where the fair value of the Group's share of the identifiable net assets acquired exceeds the fair value of consideration paid, the difference is immediately recognised in the Consolidated Income Statement. Goodwill is not amortised, however, its carrying amount is assessed annually against its recoverable amount.

(b) Other intangible assets

Amounts paid for the acquisition of identifiable intangible assets, such as software, licences and contract based intangible assets are capitalised at the fair value of consideration paid and are recorded at cost less accumulated amortisation and impairment charges. Identifiable intangible assets with a finite life are amortised on a straight-line basis over their expected useful life from when the asset is ready for use. The useful lives are as follows:

Software and licences	5 years
Contract based intangible assets	up to 35 years

The Group has no identifiable intangible assets for which the expected useful life is indefinite.

13. Impairment of non-financial assets

In testing for indications of impairment and performing impairment calculations, assets are considered as collective groups and referred to as cash generating units (CGUs). Impairment tests are carried out annually for CGUs containing goodwill and when there is an indication of impairment or impairment reversal for all other CGUs. The Group uses discounted cash flow valuation ranges to assess whether there is an indicator of impairment or impairment reversal for its CGUs. For any resulting impairment testing, and for CGUs containing goodwill, the Group uses the higher of fair value less cost of disposal (FVLCD) and its value in use to assess the recoverable amount.

If the carrying value of the CGU exceeds its recoverable amount, the CGU is impaired and an impairment loss is charged to the Consolidated Income Statement. Previously impaired CGUs are reviewed for possible reversal of a previous impairment at each reporting date. Impairment reversals cannot exceed the carrying value that would have been determined (net of depreciation) had no impairment loss been recognised for the CGU. Goodwill is not subject to impairment reversal.

For areas not yet in production, any mineral rights acquired, together with subsequent capitalised exploration and evaluation expenditure, are regularly reviewed to determine the appropriateness of continuing to carry forward costs in relation to that area of interest. Once the technical feasibility and commercial viability of the extraction of Ore Reserves in an area of interest are demonstrated, exploration and evaluation assets attributable to that area of interest are tested for impairment.

The Group recorded the following net impairment for the year ended 30 June 2022:

US\$M	Note	FY22	FY21
Impairment			
Property, plant and equipment	11	176	728
ROU lease assets ⁽¹⁾	11	7	8
Intangible assets	12	4	36
Impairment reversal			
Property, plant and equipment	11	(42)	-
Total net impairment⁽²⁾		145	772

(1) During FY21, the major corporate restructures earnings adjustment included an impairment of ROU lease assets of US\$8 million. Refer to note 4(b)(i) Underlying results reconciliation.

(2) Net impairment loss/(reversal) of non-financial assets is included within expenses excluding net finance costs in the Consolidated Income Statement.

(a) Recognised impairments - 30 June 2022

Eagle Downs Metallurgical Coal

In October 2021, the Group announced the commencement of a process to investigate the potential divestment of our interest in the Eagle Downs Metallurgical Coal development option. In December 2021, as part of the negotiation for sale, the Group received non-binding offers from external parties which, in combination with the long-term market outlook for metallurgical coal demand and prices, resulted in the recognition of an impairment of US\$79 million for the Eagle Downs CGU.

In April 2022, a preferred bidder withdrew from the negotiations and the Group has since revised its recoverable amount of the Eagle Downs CGU to US\$nil, bringing the total impairment recognised for the Eagle Downs CGU in FY22 to US\$183 million. The Group continues to investigate the potential divestment of our interest in Eagle Downs.

The long-run metallurgical coal prices and exchange rates used as part of the Group's FVLCD determinations at 30 June 2022 were within the following ranges as published by market commentators:

FY22	Assumptions used
Metallurgical coal (US\$/t)	135 to 175
Foreign exchange rates (A\$ to US\$)	0.71 to 0.80

The fair value measurement was categorised as a Level 3 fair value based on the inputs in the discounted cashflow valuation model in combination with the use of the market approach (refer to note 19 Financial assets and financial liabilities). In determining the FVLCD, a real US\$ post tax discount rate range of between 6 and 8 per cent was applied to the post tax forecast cash flows expressed in real terms.

In addition to the impairment of ROU lease assets of US\$7 million, the impairment of US\$176 million for property, plant and equipment of Eagle Downs includes US\$3 million recognised in land and buildings, US\$7 million recognised in plant and equipment, US\$102 million recognised in other mineral assets, US\$51 million recognised in assets under construction, and US\$13 million recognised in exploration and evaluation.

13. Impairment of non-financial assets continued

(a) Recognised impairments - 30 June 2022 continued

Brazil Aluminium

On 6 January 2022, the Group announced its decision to participate in a restart of Brazil Aluminium. The Group assessed the implications of the restart decision and reviewed the impact on the carrying value of the Brazil Aluminium CGU as at 31 December 2021.

At 31 December 2021, the Group reversed the full impairment that was recognised when the smelter was placed on care and maintenance in 2015, limited to the carrying amount that would have been determined (net of amortisation and depreciation) had no impairment loss been recognised at such time. The recoverable amount remains significantly higher than the carrying amount recorded.

The recoverable amount was based on the smelter's FVLCD and was informed by the Group's production profile and cost profile which were consistent with the Group's commitments to long-term power agreements. The key assumptions used for commodity prices were comparable to market consensus forecasts and foreign exchange rates were aligned with forward market rates.

The fair value measurement was categorised as a Level 3 fair value based on the inputs in the discounted cashflow valuation model (refer to note 19 Financial assets and financial liabilities). In determining the FVLCD, a real US\$ post tax discount rate range of between 6 and 8 per cent, and a country risk premium of 2 per cent, was applied to the post tax forecast cash flows expressed in real terms.

The impairment reversal of US\$42 million includes US\$18 million recognised in land and buildings and US\$24 million recognised in plant and equipment, both within property, plant and equipment. In addition, the Group recognised indirect tax assets of US\$77 million that had been expensed since the smelter was placed on care and maintenance in 2015. Refer to note 4(b)(ii) Significant items.

The Group did not identify any impairment indicator as at 30 June 2022.

(b) Recognised impairments - 30 June 2021

Illawarra Metallurgical Coal

On 5 February 2021, the Group was advised that the New South Wales (NSW) Independent Planning Commission (IPC) refused the application for the Dendrobium Next Domain (DND) project at IMC. The Group scaled back activity on the DND project while it considered alternative options following the IPC decision. The decision by the IPC introduced uncertainty over the future of the DND project, the IMC complex and the DND project's value contribution to the IMC CGU recoverable amount assessment.

The Group assessed the potential implications of the IPC decision and reviewed the optimised IMC CGU and the resultant impact on the carrying value of its assets as at 30 June 2021. The IMC CGU consists of the Appin and Dendrobium underground metallurgical coal mines, and the West Cliff and Dendrobium coal preparation plants. The Group recognised an impairment of property, plant and equipment at its IMC CGU of US\$728 million. This charge reflected the increased approval uncertainty created by the IPC's decision to refuse the application for the DND project and the resultant impact on the economics of the broader IMC complex. The recoverable amount of the IMC CGU was determined as US\$550 million based on its FVLCD and reflected judgements in relation to the likelihood of future mine projects for, and the Group's major long-term coal supply arrangements connected with, the IMC complex.

In the short to medium-term, we applied an actual enacted carbon price less allowable abatements based on existing regulations with the expectation that existing allowances will reduce over time as Australia strengthens its climate policies. In the long-term we assumed a single global carbon price, based on an assessment of policy-driven costs, evolution of technological innovation and abatement costs. The Group's long-term carbon price at the time of US\$40 per tonne CO₂-e was applied to all Scope 1 and 2 emissions and we assumed no carbon exemptions or allowances are employed.

The fair value measurement was categorised as a Level 3 fair value based on the inputs in the discounted cashflow valuation model (refer to note 19 Financial assets and financial liabilities). In determining the FVLCD, a real US\$ post tax discount rate range of between 6 and 8 per cent was applied to discount future cash flows. The recoverable amount was informed by a production profile and costs based on management's planning processes.

The long-run metallurgical coal prices, energy coal prices and exchange rates used in the FVLCD determinations were within the following ranges as published by market commentators:

FY21	Assumptions used
Metallurgical coal (US\$/t)	112 to 160
Energy coal (US\$/t)	58 to 78
Foreign exchange rates (A\$ to US\$)	0.71 to 0.77

13. Impairment of non-financial assets continued

(c) Impairment test for CGUs containing goodwill

For the purpose of impairment testing, goodwill has been allocated to CGUs that are expected to benefit from the synergies of the business combination and which represent the level at which management will monitor and manage the goodwill.

The carrying amount of goodwill has been allocated to the following CGU:

US\$M	Note	FY22	FY21
Hillside Aluminium		139	139
Total goodwill	12	139	139

The goodwill arose from the acquisition of Alusaf in Hillside Aluminium (Pty) Ltd and has been allocated to the Hillside Aluminium CGU which comprises the Hillside aluminium smelter. The recoverable amount of the Hillside Aluminium CGU was determined based on a FVLCD calculation and was categorised as a Level 3 fair value based on the inputs in the valuation technique (refer to note 19 Financial assets and financial liabilities). The impairment test for the Hillside Aluminium CGU indicated that no impairment was required. The determination of FVLCD was most sensitive to:

- Production volumes;
- Aluminium and alumina prices;
- Foreign exchange rates;
- Carbon pricing and timing; and
- Discount rate.

Production volumes – estimated production volumes are based on the life of the smelter as determined by management as part of the long-term planning process. Production volumes are influenced by production input costs such as electricity prices, jurisdiction based carbon pricing, and the selling price of aluminium.

Aluminium and alumina prices, and foreign exchange rates – key assumptions for aluminium and alumina prices are comparable to market consensus forecasts for each of the years of the life of operation. Foreign exchange rates are aligned with forward market rates in the short-run and thereafter are within the range published by market commentators.

The table below shows the amount by which these assumptions must change in isolation in order for the estimated recoverable amount to be equal to the carrying amount of the Hillside Aluminium CGU, including goodwill. Owing to the complexity of the relationships between each key assumption, the analysis was performed for each assumption individually.

FY22	Assumptions used	Change required for the carrying amount to equal the recoverable amount
Aluminium prices (US\$/t)	1,720 to 2,866	Decrease of 5%
Alumina prices (US\$/t)	278 to 400	Increase of 18%
Foreign exchange rates (US\$ to ZAR)	14.2 to 16.3	ZAR strengthening of 11%

Carbon pricing and timing – in determining the FVLCD, the current jurisdiction enacted carbon price, in real terms, of ZAR143 to ZAR150 per tonne CO₂-e is applied for the life of operation for Scope 1 and 2 emissions, net of operation specific abatement allowances.

Discount rate – in determining the FVLCD, a real US\$ post tax discount rate range of between 6 and 8 per cent (FY21: range of between 6 and 8 per cent), and a country risk premium of 2 per cent (FY21: 2 per cent) was applied to post tax cash flows expressed in real terms.

13. Impairment of non-financial assets continued

Key estimates, assumptions and judgements

An assessment as to whether there is any indication of impairment and the calculation of a CGU's recoverable amount requires management to make estimates and assumptions about expected production and sales volumes, commodity prices (considering current and historical prices, price trends and related factors), foreign exchange rates, Ore Reserves, Mineral Resources, regulatory approvals, operating costs, closure and rehabilitation costs, future capital expenditure, allocation of corporate costs, specific jurisdiction based carbon prices, where relevant, and global carbon pricing. These estimates and assumptions are subject to risk and uncertainty. There is a possibility that changes in circumstances will alter these projections, which may impact the recoverable amount. In such circumstances, some or all of the carrying amount may be impaired or a previously recognised impairment charge may be reversed with the impact recorded in the Consolidated Income Statement.

The key estimates and assumptions used in the assessment of impairment indicators are as follows:

Future production	Life of operation plans based on Proved and Probable Ore Reserve estimates, Mineral Resource (excluding Inferred Mineral Resources) estimates, economic life of smelters and refineries and, in certain cases, expansion projects, including future cost of production. Refer note 2(c) Key estimates, assumptions and judgements for further details regarding Ore Reserves as a source of estimation uncertainty.
Commodity prices	Forward market and contract prices, and longer-term price protocol estimates which includes an assessment of the impact carbon price assumptions might have.
Exchange rates	Observable forward market foreign exchange rates, and longer-term price protocol estimates.
Discount rates	Risk-adjusted cost of capital appropriate to the resource.
Regulatory approvals	Life of operation plans include assumptions associated with the successful application, and timing thereof, of ongoing and future regulatory approvals.
Carbon prices	Actual enacted schemes less allowable abatements, where applicable, and a long-term base case estimate of US\$60 per tonne CO ₂ -e (real) applied to all Scope 1 and 2 emissions from FY40 onwards.

Where impairment testing is undertaken, a range of external sources are considered as further input to the above assumptions.

Exploration and evaluation expenditure

For areas not yet in production, acquired mineral rights together with subsequent capitalised exploration and evaluation expenditure require judgement to determine the likelihood of future economic benefits from future development, and whether sufficient data exists to indicate that, although a development in the specific area is likely to proceed, the carrying amount of the exploration and evaluation asset is unlikely to be recovered in full. When facts and circumstances suggest that the carrying amount exceeds the recoverable amount, an impairment test will be required which may result in an adjustment to the carrying value of acquired mineral rights together with subsequent capitalised exploration and evaluation expenditure.

In August 2018, the Group completed the acquisition of the Hermosa project located in Arizona, United States. The Hermosa project comprises the zinc-lead-silver sulphide deposit (Taylor Deposit), the zinc-manganese-silver oxide deposit (Clark Deposit) and the potential for further polymetallic and copper mineralisation. In January 2022, the Group announced the completed pre-feasibility study for the Taylor Deposit, its first development option at Hermosa. Furthermore, a scoping study for the spatially linked Clark Deposit has confirmed the potential for a separate underground mining operation which may underpin a second development stage at Hermosa, with future studies to consider the opportunity to integrate its development with the Taylor Deposit. At or before the final investment decision, and once technical feasibility and commercial viability has been demonstrated, the exploration and evaluation assets and acquired mineral rights will be tested for impairment. At that time, the Group will identify the relevant CGUs within the Hermosa area of interest, allocate historical costs and determine the recoverable amount for each CGU. Should historical costs exceed the recoverable amount for one of more CGUs, an impairment loss would be recognised.

13. Impairment of non-financial assets continued

Key estimates, assumptions and judgements continued

Climate change-related risks and opportunities

The Group's forecast commodity prices and other key assumptions represent management's expectations on likely outcomes, with a base case estimation of at least 2°C climate related warming. When assessing whether there is any indication of impairment or impairment reversal, management considers a range of possible scenarios, including a 1.5°C scenario aligned with the ambition of the Paris Agreement, with no one scenario being conclusive in isolation.

The full cost and benefit of achieving the Group's emissions reduction strategy is included in the Group's valuations when it has a high degree of confidence that a project will achieve a reduction, which typically aligns with the related capital project being internally approved.

The Group utilises an internal price on carbon to inform decision-making and valuations. In developing forecast global carbon prices, the Group considers policy and market-driven carbon prices as well as abatement costs, weighted across developed and developing countries. During FY22, the Group increased its long-term base case estimate of carbon prices from US\$40 to US\$60 per tonne CO₂-e (real), as a result of implications from key policy and market developments over the year, including COP26, trends in market-driven carbon prices and updated country and corporate benchmarks.

When assessing for impairment indicators, the Group has considered the sensitivity of operations to changes in carbon prices. The Group's operations are not uniformly impacted by carbon prices. They are influenced by the amount of Scope 1 and 2 emissions the operation generates, in combination with the respective life of operation plans. The Group's CGUs with a higher carbon sensitivity include Worsley Alumina, IMC, Hillside Aluminium and Mozal Aluminium.

Previously impaired CGUs

When assessing for impairment and impairment reversal indicators, the fundamental characteristics of previously impaired CGUs are relevant to their sensitivity to key estimates and assumptions. For previously impaired CGUs these include:

- CGUs with higher operating margins and with life of operation plans longer than 10 years which are less sensitive to short-term commodity prices and foreign exchange rates, for example Worsley Alumina;
- CGUs with lower operating margins which are highly sensitive to movements in commodity prices and foreign exchange rates, for example South Africa Manganese and IMC; and
- CGUs with higher operating margins, shorter life of operation plans and exposure to commodities that display greater price volatility, for example Australia Manganese.

The operating assets for previously impaired CGUs are included in note 4(b) Segment results.

Notes to financial statements – Operating assets and liabilities continued

14. Trade and other payables

US\$M	FY22	FY21
Current		
Trade creditors	813	663
Other creditors	176	114
Total current trade and other payables	989	777
Non-current		
Trade creditors	7	-
Other creditors	1	2
Total non-current trade and other payables	8	2

Trade and other payables generally represent liabilities for goods and services provided to the Group prior to the end of the financial year which were unpaid at the end of the financial year. These amounts are unsecured. Trade and other payables are included in current liabilities, except for those liabilities where payment is not due within 12 months from the reporting date, which are classified as non-current liabilities.

Trade and other payables, other than financial guarantee contracts and financial liabilities held at FVTPL, are stated at their amortised cost and are non-interest bearing. The carrying value of these trade and other payables is considered to approximate fair value due to the short-term nature of the payables.

15. Provisions

US\$M	Note	FY22	FY21
Current			
Employee benefits		171	195
Closure and rehabilitation		8	15
Other		7	29
Total current provisions		186	239
Non-current			
Employee benefits		4	6
Closure and rehabilitation		1,785	1,702
Post-retirement employee benefits	22	34	41
Other		12	10
Total non-current provisions		1,835	1,759

15. Provisions continued

FY22 US\$M	Employee benefits	Closure and rehabilitation	Post- retirement employee benefits	Other	Total
At the beginning of the financial year	201	1,717	41	39	1,998
Charge/(credit) for the year to the Consolidated Income Statement:					
Underlying	156	3	1	6	166
Discounting	-	67	-	-	67
Change in discount rate ⁽¹⁾	-	(2)	-	-	(2)
Net interest expense	-	-	3	-	3
Exchange rate variations	(14)	(19)	(4)	(3)	(40)
Released during the year	(8)	(8)	-	(19)	(35)
Amounts capitalised for change in costs and estimates	-	167	-	-	167
Amounts capitalised for change in discount rate ⁽¹⁾	-	(15)	-	-	(15)
Foreign exchange amounts capitalised	-	(127)	-	-	(127)
Amounts taken to retained earnings	-	-	(3)	-	(3)
Utilisation	(160)	(9)	(4)	(4)	(177)
Acquisition of subsidiaries and joint operations ⁽²⁾	-	19	-	-	19
At the end of the financial year	175	1,793	34	19	2,021

(1) The Group has reviewed its discount rates applied to closure and rehabilitation provisions. The corresponding net decrease in the provision is capitalised as an asset in the case of open sites or charged/(credited) to the Consolidated Income Statement in the case of closed sites.

(2) Refer to note 30 Acquisition of subsidiaries and joint operations.

FY21 US\$M	Employee benefits	Closure and rehabilitation	Post- retirement employee benefits	Other	Total
At the beginning of the financial year	188	1,830	77	78	2,173
Charge/(credit) for the year to the Consolidated Income Statement:					
Underlying	184	16	1	22	223
Discounting ⁽¹⁾	-	120	-	3	123
Change in discount rate ⁽²⁾	-	(23)	-	-	(23)
Net interest expense ⁽³⁾	-	-	8	-	8
Exchange rate variations	21	51	16	8	96
Released during the year	(2)	(3)	-	(4)	(9)
Amounts capitalised for change in costs and estimates	-	271	-	-	271
Amounts capitalised for change in discount rate	-	235	-	-	235
Foreign exchange amounts capitalised	-	238	-	-	238
Amounts taken to retained earnings	-	-	(1)	-	(1)
Utilisation	(152)	(21)	(7)	(33)	(213)
Disposal of a discontinued operation ⁽⁴⁾	(38)	(997)	(60)	(30)	(1,125)
Transfers and other movements	-	-	7	(5)	2
At the end of the financial year	201	1,717	41	39	1,998

(1) Includes amounts relating to a discontinued operation of US\$64 million. Refer to note 33 Discontinued operation.

(2) Includes amounts relating to a discontinued operation of US\$(17) million. Refer to note 33 Discontinued operation.

(3) Includes amounts relating to a discontinued operation of US\$5 million. Refer to note 33 Discontinued operation.

(4) Refer to note 33 Discontinued operation.

(a) Employee benefits

Liabilities for unpaid wages and salaries are recognised in other creditors. Current entitlements to annual leave and accumulating sick leave accrued for services up to the reporting date are recognised in the provision for employee benefits and are measured at the amounts expected to be paid. Entitlements to non-accumulated sick leave are recognised when the leave is taken.

The current liability for long service leave (for which settlement within 12 months of the reporting date cannot be deferred) is recognised in the current provision for employee benefits and is measured in accordance with annual leave described above.

15. Provisions continued

(b) Closure and rehabilitation

The mining, extraction and processing activities of the Group normally give rise to obligations for site closure or rehabilitation. Closure and rehabilitation works can include facility decommissioning and dismantling, removal or treatment of waste materials, site and land rehabilitation.

Provisions for the cost of each closure and rehabilitation program are recognised at the time that environmental disturbance occurs. When the extent of disturbance increases over the life of an operation, the provision is increased accordingly. Costs included in the provision encompass all closure and rehabilitation activity expected to occur progressively over the life of the operation and at, or after, the time of closure, for disturbance existing at the reporting date. Routine operating costs that may impact the ultimate closure and rehabilitation activities, such as waste material handling conducted as an integral part of a mining or production process, are not included in the provision. Costs arising from unforeseen circumstances, such as the contamination caused by unplanned discharges, are recognised as an expense and liability when the event gives rise to an obligation which is probable and capable of reliable estimation.

The timing of the actual closure and rehabilitation expenditure is dependent upon a number of factors such as: the life and nature of the asset, which is informed by the demand for commodities, carbon pricing and other variables; the operating licence conditions; and the environment in which the mine operates. Expenditure may occur before and after closure and can continue for an extended period of time depending on closure and rehabilitation requirements.

Closure and rehabilitation provisions are measured at the expected value of future cash flows, discounted to their present value and determined according to the probability of alternative estimates of cash flows occurring for each operation.

Discount rates used are risk-free interest rates specific to the country in which the operations are located. Material changes in country specific risk-free interest rates may affect the discount rates applied.

When provisions for closure and rehabilitation are initially recognised, the corresponding cost is capitalised as an asset, representing part of the cost of acquiring the future economic benefits of the operation. The capitalised cost of closure and rehabilitation activities is recognised in property, plant and equipment and depreciated accordingly. The value of the provision is progressively increased over time due to the effect of discounting unwind and inflation, creating an expense recognised in finance expenses.

Closure and rehabilitation provisions are also adjusted for changes in costs and estimates. Those adjustments are accounted for as a change in the corresponding capitalised cost, except where a reduction in the provision is greater than the depreciated capitalised cost of the related assets, in which case the carrying value is reduced to nil and the remaining adjustment is recognised first against other items in property, plant and equipment, and subsequently to the Consolidated Income Statement. In the case of closed sites, changes to estimated costs are recognised immediately in the Consolidated Income Statement. Changes to the capitalised cost result in an adjustment to future depreciation. Adjustments to the estimated amount and timing of future closure and rehabilitation cash flows are a normal occurrence in light of the significant judgements and estimates involved.

(c) Post-retirement employee benefits

This relates to the provision for post-employment defined benefit pension and medical schemes. Refer to note 22 Pension and other post-retirement obligations.

Key estimates, assumptions and judgements

The recognition of closure and rehabilitation provisions requires judgement and is based on significant estimates and assumptions such as:

- The requirements of the relevant local legal and regulatory framework;
- The magnitude of possible contamination;
- The timing, extent and cost of required closure and rehabilitation activity; and
- Potential changes in climate conditions, including physical risks and opportunities of climate change.

These uncertainties may result in future actual expenditure differing from the amounts currently provided.

The Group's expectations and approach in relation to climate change-related risks and opportunities are reflected in the estimates and assumptions noted above. For example, our base case estimation of at least 2°C climate related warming impacts our mine plans and forecast carbon prices, which in turn impacts assumptions regarding timing and cost of closure and rehabilitation activities.

The provision recognised for each site is periodically reviewed and updated based on the facts and circumstances available at the time.

In addition to the uncertainties noted above, certain closure and rehabilitation activities may be subject to legal disputes and depending on the ultimate resolution of these disputes, the final liability for such matters could vary.

If risk-free interest rates were decreased by 0.5 per cent, the provision would increase by approximately US\$281 million.

Notes to financial statements – Capital structure and financing

This section outlines how the Group manages its capital and related financing activities.

16. Cash and cash equivalents

Cash and cash equivalents include cash at bank and on hand as well as short-term deposits.

US\$M	FY22	FY21
Cash	763	596
Short-term deposits	1,602	1,017
Cash and cash equivalents⁽¹⁾⁽²⁾	2,365	1,613

(1) Cash and cash equivalents include US\$4 million (FY21: US\$5 million) which is restricted by legal or contractual arrangements.

(2) Cash and cash equivalents include US\$335 million (FY21: US\$285 million) consisting of short-term deposits and cash managed by the Group on behalf of its equity accounted investments. The corresponding amount payable is included in note 17 Interest bearing liabilities.

17. Interest bearing liabilities

US\$M	FY22	FY21
Current		
Lease liabilities	40	37
Unsecured loans from equity accounted investments ⁽¹⁾	335	285
Unsecured other	27	86
Total current interest bearing liabilities	402	408
Non-current		
Senior unsecured notes	689	-
Lease liabilities	610	650
Unsecured other	126	149
Total non-current interest bearing liabilities	1,425	799

(1) Refer to note 16 Cash and cash equivalents and note 29 Related party transactions.

On 14 April 2022, the Group completed the issuance of US\$700 million of senior unsecured notes pursuant to Rule 144A and Regulation S of the *United States Securities Act of 1933*. The Group utilised the cash proceeds from the offering, together with cash on hand, for the repayment in full of the amounts drawn down under its acquisition bridge facility used to partly fund the acquisition of a 45 per cent interest in Sierra Gorda, refer to note 31 Acquisition of equity accounted investments. The notes will pay interest on 14 April and 14 October each year at a rate of 4.35 per cent per annum and mature in 2032.

All borrowings are initially recognised at their fair value net of directly attributable transaction costs. Subsequent to initial recognition, interest bearing liabilities are measured at amortised cost using the effective interest method. Gains and losses are recognised in the Consolidated Income Statement when the liabilities are derecognised. Interest bearing liabilities are classified as current liabilities, except when the Group has an unconditional right to defer settlement for at least 12 months after the reporting date, in which case the liabilities are classified as non-current.

A reconciliation of movements in interest bearing liabilities to cash flows arising from financing activities is set out below:

FY22 US\$M	Lease liabilities	Other interest bearing liabilities	Total interest bearing liabilities
At the beginning of the financial year	687	520	1,207
Changes from financing cash flows:			
Net receipt/(repayment)	(46)	641	595
Total changes from financing cash flows	(46)	641	595
The effect of changes in foreign exchange rates	(57)	9	(48)
Net increase/(decrease) in lease liabilities	66	-	66
Other changes:			
Interest expense	53	23	76
Interest paid	(53)	(16)	(69)
At the end of the financial year	650	1,177	1,827

18. Net finance costs

US\$M	FY22	FY21
Finance expenses		
Interest on borrowings	31	15
Interest on lease liabilities	53	55
Discounting on provisions and other liabilities	65	59
Change in discount rate on closure and rehabilitation provisions	(2)	(6)
Net interest expense on post-retirement employee benefits	3	3
Exchange rate variations on net debt	(40)	52
	110	178
Finance income		
Interest on loans to equity accounted investments	63	8
Other interest income	16	9
	79	17
Net finance costs	31	161

19. Financial assets and financial liabilities
(a) Financial risk management objectives and policies

The Group is exposed to market, liquidity and credit risk. These risks are managed in accordance with the Group's portfolio risk management strategy which supports the delivery of the Group's financial targets while protecting its future financial security and flexibility by taking advantage of the natural diversification of the Group's operations and activities. A Cash Flow at Risk (CFaR) framework is used to capture the benefits of diversification and to measure the aggregate impact of financial risks on those financial targets. CFaR is measured on a portfolio basis and is defined as the expected reduction from projected business plan cash flows over a one-year horizon in a pessimistic case. In addition to the CFaR framework, deterministic analysis of a range of operational, commodity price and foreign exchange rate scenarios is also used to measure the potential impact on financial targets.

(i) Market risk

Market risk is the risk that the fair value of future cash flows of a financial instrument will fluctuate because of changes in market prices. Market risk comprises interest rate risk, foreign currency risk and other price risk, such as equity price risk and commodity price risk.

Group activities expose it to market risks associated with movements in interest rates, foreign currencies and commodity prices. The Group predominantly manages currency impacts, input costs and commodity prices on a floating or index basis. This strategy gives rise to a risk of variability in earnings which is measured under the CFaR framework.

In executing the Group's strategy, financial instruments may be employed for risk mitigation purposes within a strict Board of Directors approved mandate, or to align the total Group exposure to the relevant index target in the case of commodity sales, operating costs or debt issuances.

Interest rate risk

The Group is exposed to interest rate risk on its cash and cash equivalents, trade and other receivables, other financial assets, trade and other payables, and interest bearing liabilities from the possibility that changes in interest rates will affect future cash flows or the fair value of financial instruments.

The Group had the following exposure to interest rate risk:

US\$M	FY22	FY21
Financial assets		
Cash and cash equivalents	2,306	1,608
Trade and other receivables	102	131
Other financial assets	39	-
Financial liabilities		
Trade and other payables	-	(14)
Interest bearing liabilities	(334)	(314)
Net exposure	2,113	1,411

19. Financial assets and financial liabilities continued

(a) Financial risk management objectives and policies continued

(i) Market risk continued

The following table demonstrates the sensitivity to a reasonably possible change in interest rates on that portion of financial assets and liabilities affected. With all other variables held constant, the Group's profit/(loss) after tax would increase/(decrease) as follows:

Increase/decrease in basis points US\$M	Impact on profit/(loss) after tax	
	FY22	FY21
+100	16	15
-100	(13)	(4)

The sensitivity analysis assumes that the change in interest rates is effective from the beginning of the financial year and the fixed/floating mix and balances are constant over the year. For the purpose of the sensitivity analysis, the decrease of 100 basis points is applied to the extent that the underlying interest rates do not fall below zero per cent. However, interest rates and the profile of the Group's financial assets and liabilities may not remain constant over the coming financial year and therefore such sensitivity analysis should be used with care.

Foreign currency risk

Foreign currency risk is the risk that the fair value or future cash flows of an exposure will fluctuate because of changes in foreign exchange rates. The functional currency of the Group's operations is primarily the US dollar. The Group's potential currency exposures comprise:

- Translational exposure in respect of non-functional currency monetary items; and
- Transactional exposure in respect of non-functional currency expenditure and revenues.

Certain operating and capital expenditure is incurred by operations in currencies other than their functional currency. To a lesser extent, certain sales revenue is earned in currencies other than the functional currency of the operation, and certain exchange control restrictions may require funds to be maintained in currencies other than the operations functional currency. When required, the Group may enter into forward exchange contracts.

The principal non-functional currencies to which the Group is exposed to are the Australian dollar, Brazilian real, Canadian dollar, Colombian peso, and South African rand. The following table shows the foreign currency risk arising from financial assets and liabilities, which are denominated in these currencies:

Net financial assets/(liabilities) – by currency of denomination

US\$M	FY22	FY21
Australian dollar	(860)	(847)
Brazilian real	(63)	58
Canadian dollar	17	19
Colombian peso	(47)	9
South African rand	98	(172)

Based on the Group's net financial assets and liabilities as at 30 June, a weakening of the US dollar against these currencies as illustrated in the table below, with all other variables held constant, would increase/(decrease) the Group's profit/(loss) after tax and other comprehensive income/(loss), net of tax, as follows:

FY22 US\$M	Profit/(loss) after tax	Other comprehensive income/(loss), net of tax
10% movement in Australian dollar	(60)	-
10% movement in Brazilian real	(6)	-
10% movement in Canadian dollar	-	1
10% movement in Colombian peso	(5)	-
10% movement in South African rand	10	-

FY21 US\$M	Profit/(loss) after tax	Other comprehensive income/(loss), net of tax
10% movement in Australian dollar	(60)	-
10% movement in Brazilian real	(1)	7
10% movement in Canadian dollar	1	1
10% movement in Colombian peso	1	-
10% movement in South African rand	(17)	-

19. Financial assets and financial liabilities continued

(a) Financial risk management objectives and policies continued

(i) Market risk continued

Commodity price risk

Contracts for the sale and physical delivery of commodities are executed whenever possible on a pricing basis intended to achieve a relevant index target. Where pricing terms deviate from the index, the Group may choose to use derivative commodity contracts to realise the index price. Contracts for the physical delivery of commodities are not typically financial instruments and are carried at cost (typically at nil) in the Consolidated Balance Sheet.

Provisionally priced commodity sales and purchases contracts

Provisionally priced sales or purchases contracts are those for which price finalisation, referenced to the relevant index, is outstanding at the reporting date. Provisional pricing mechanisms embedded within these sales and purchases arrangements have the character of a commodity derivative and are carried at FVTPL as part of trade receivables or trade creditors. Fair value movements on provisionally priced sale contracts are disclosed as other revenue in the Group's segment results, refer to note 4(b) Segment results. The Group's exposure at 30 June 2022 to the impact of movements in commodity prices on provisionally invoiced sale and purchase volumes was predominantly around nickel, silver, lead, zinc and aluminium.

The Group had 2.3kt of nickel, 1.8Moz of silver, 30.0kt of lead, 5.7kt of zinc and 27.1kt of aluminium exposure at 30 June 2022 (FY21: 3.6kt of nickel, 3.0Moz of silver, 32.0kt of lead, 9.6kt of zinc, 4.0kt of aluminium and 64.2kt of alumina) that was provisionally priced. The final price of these sales or purchases will be determined during the first half of FY23. A 10 per cent change in the realised price of these commodities, with all other factors held constant, would increase or decrease profit/(loss) after tax by US\$18 million (FY21: US\$26 million). The relationship between commodity prices and foreign currencies is complex and foreign exchange rates and commodity prices may move concurrently in response to market conditions. These sensitivities should therefore be used with care.

(ii) Liquidity risk

The Group's liquidity risk arises from the possibility that it may not be able to settle or meet its obligations as they fall due. Operational, capital and regulatory requirements are considered in the management of liquidity risk, in conjunction with short and long-term forecast information.

In line with the Group's policy on counterparty credit exposure, the Group only uses counterparties of a high credit standing for the investment of any excess cash.

The entities in the Group are funded by a combination of cash generated by the Group's operations, working capital facilities and intercompany loans provided by the Group. Intercompany loans may be funded by a combination of cash, short and long-term debt and equity market raisings.

Standby arrangements and credit facilities

Details of the Group's major standby arrangement are as follows:

FY22 US\$M	Available	Used	Unused
Revolving credit facility ⁽¹⁾	1,400	-	1,400

(1) The Group has an undrawn revolving credit facility which is a standby arrangement to the US commercial paper program. The facility was refinanced in December 2021 as a five year facility maturing in December 2026 with options to extend for up to a further two years by mutual agreement. On refinancing, the size of the facility reduced by US\$50 million to US\$1,400 million.

19. Financial assets and financial liabilities continued

(a) Financial risk management objectives and policies continued

(ii) Liquidity risk continued

Maturity profile of financial liabilities

The maturity profiles of financial liabilities, based on the contractual amounts, are as follows:

FY22 US\$M	Carrying amount	Total	On demand or less than 1 year	1 to 5 years	More than 5 years
Trade and other payables ⁽¹⁾	956	956	949	7	-
Senior unsecured notes	689	700	-	-	700
Lease liabilities	650	1,149	90	314	745
Other interest bearing liabilities	488	507	362	85	60
Other financial liabilities – contingent consideration	84	109	-	109	-
Other financial liabilities – derivative contracts	6	6	6	-	-
Total	2,873	3,427	1,407	515	1,505

(1) Excludes current input taxes of US\$40 million and non-current input and other taxes of US\$1 million included in other creditors. Refer to note 14 Trade and other payables.

FY21 US\$M	Carrying amount	Total	On demand or less than 1 year	1 to 5 years	More than 5 years
Trade and other payables – financial guarantee contracts	15	93	93	-	-
Trade and other payables ⁽¹⁾ – other	754	754	752	2	-
Lease liabilities	687	1,264	91	320	853
Other interest bearing liabilities	520	545	372	98	75
Other financial liabilities – derivative contracts	11	11	11	-	-
Total	1,987	2,667	1,319	420	928

(1) Excludes current input taxes of US\$10 million included in other creditors. Refer to note 14 Trade and other payables.

(iii) Credit risk

The Group has credit risk management policies in place covering the credit analysis, approvals and monitoring of counterparty exposures. As part of these processes the ongoing creditworthiness of counterparties is regularly assessed.

Mitigation methods are defined and implemented for higher-risk counterparties to protect revenues, with more than half of the Group's sales of physical commodities occurring via secured payment terms including prepayments, letters of credit, guarantees and other risk mitigation instruments. The methods include credit exposure management and overdue accounts monitoring. In addition, leading key risk indicators are actively monitored for all customers to identify any emerging risks.

There are no material concentrations of credit risk, either with individual counterparties or groups of counterparties, by industry or geography.

The Group's exposure to credit risk is influenced by the individual characteristics of each counterparty or customer. However, management also considers other factors that may influence the credit risk of its counterparty or customer base. Where there is credit exposure for a new customer, they are assessed for creditworthiness before the Group's standard payment and delivery terms and conditions are offered. For these customers, credit limits are established and reviewed annually or with the release of new information materially impacting the customer's creditworthiness. The Group's review includes external credit ratings, if available, credit agency information, as well as financial institution and industry information.

The carrying amounts of financial assets represent the maximum credit exposure.

19. Financial assets and financial liabilities continued

(a) Financial risk management objectives and policies continued

(iii) Credit risk continued

For trade receivables, the Group uses the simplified approach to recognise impairments based on the lifetime expected credit loss. For other receivables, the Group applies the general approach and recognises impairments based on a 12-month expected credit loss. Impairment allowances are based on a forward-looking expected credit loss model. Where there has been a significant increase in credit risk, a loss allowance for lifetime expected credit losses is recognised.

Exposures are grouped by external credit rating and security options and an expected credit loss rate is calculated accordingly. Where applicable, actual credit loss experience is also taken into account. For remaining receivables without an external credit rating or security option, a rating of BB (S&P Global Ratings) is used, on the basis that there is no support that it is investment grade, nor is there any evidence of default.

Shareholder loan receivable from Sierra Gorda

Purchased or originated credit-impaired financial assets are initially recognised at fair value. They are subsequently measured at amortised cost using the credit-adjusted effective interest method, less an allowance for changes in lifetime expected credit losses since initial recognition. The credit-adjusted effective interest rate is determined at initial recognition and not amended for subsequent changes to lifetime expected credit losses since acquisition. Changes in lifetime expected credit losses are recognised as impairment and reversals of impairment of financial assets.

The Group's investment in the Sierra Gorda operation is represented by the carrying value of the equity accounted investment of US\$30 million and the carrying value of a non-current purchased credit-impaired receivable of US\$1,648 million, classified as a loan to an equity accounted investment, refer to note 9 Trade and other receivables.

The loan has a contractual interest rate of 8 per cent and the repayment of the loan by the Sierra Gorda operation is dependent on its financial performance. At 30 June 2022, the Group updated its estimated timing of the loan repayments and as a result recognised an impairment of US\$26 million which is included in expenses excluding net finance costs in the Consolidated Income Statement. The net present value of the expected future cash flows of the loan was determined as US\$1,648 million using a measurement methodology consistent with a Level 3 fair value based on the inputs in the valuation technique.

The following table shows the movement in the carrying amount of this receivable:

US\$M	FY22
At the beginning of the financial year	-
Acquisition ⁽¹⁾	1,687
Interest accrued	55
Net impairment	(26)
Repayments	(68)
At the end of the financial year	1,648

(1) Refer to note 31 Acquisition of equity accounted investments.

In determining the net present value, an effective interest rate of 9 per cent was applied to discount the future loan repayments. The rate was determined on the date of acquisition of the Group's interest in Sierra Gorda and was informed by a production profile based on mineral resources and mineral reserves that are qualifying foreign estimates under the ASX Listing Rules and costs based on the most recent Sierra Gorda budget. The market announcement relating to the foreign estimate within the Resources and Reserves section of this report underpin the aforementioned production profile. The production profile is based on the Group's current expectations of future results or events and should not be solely relied upon when making investment decisions. Further evaluation work and appropriate studies are required to establish sufficient confidence of meeting this production profile.

The table below shows the key assumptions used in the net present value determinations:

FY22	Assumptions used
Copper (US\$/lb)	2.70 to 4.08
Foreign exchange rates (US\$ to CLP)	635 to 827

The key assumptions for copper prices are comparable to market consensus forecasts and foreign exchange rates are aligned with forward market rates in the short-run and thereafter are within the range published by market commentators. The potential effect of using reasonably possible alternative assumptions in determining the net present value of the loan, based on directionally changing all the significant inputs either favourably or unfavourably by 10 per cent while holding all other variables constant, is shown in the following table:

FY22 US\$M			Impact on profit/(loss) after tax	
	Face value	Carrying value	Favourable	Unfavourable
Trade and other receivables				
Loans to equity accounted investments	2,073	1,648	63	(157)

19. Financial assets and financial liabilities continued

(b) Accounting classification and fair value

(i) Recognition and initial measurement

With the exception of those classified as FVTPL, all financial assets (other than trade and other receivables without a significant financing component) and financial liabilities are initially recognised at fair value plus transaction costs directly attributable to its acquisition or issuance. Trade and other receivables without a significant financing component are initially measured at the transaction price.

(ii) Financial assets: Classification and subsequent measurement

Subsequent to initial recognition, financial assets are either measured at amortised cost or at fair value.

A financial asset is measured at amortised cost if it meets both of the following conditions and is not designated as FVTPL:

- It is held within a business model whose objective is to hold assets to collect contractual cash flows; and
- Its contractual terms give rise, on specified dates, to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Financial assets that are held for trading and whose performance is evaluated on a fair value basis are measured at FVTPL.

On initial recognition, the Group may irrevocably designate a financial asset to be held at FVTPL that otherwise meets the requirements to be measured at amortised cost or for designation as FVOCI, if doing so eliminates or significantly reduces an accounting mismatch that would otherwise arise.

On initial recognition of an investment in an equity instrument not held for trading, the Group may also irrevocably elect to present subsequent changes in the investment's fair value in other comprehensive income. This election is made on an investment-by-investment basis.

All financial assets not measured at amortised cost or designated as FVOCI are measured at FVTPL. This includes all derivative financial assets.

Financial assets are not reclassified subsequent to their initial recognition unless the Group changes its business model for managing financial assets, in which case all affected financial assets are reclassified on the first day of the first reporting period following the change in the business model.

19. Financial assets and financial liabilities continued

(b) Accounting classification and fair value continued

(ii) Financial assets: Classification and subsequent measurement continued

Classification	Subsequent measurement
Held at FVTPL	Financial assets held at FVTPL are subsequently measured at fair value. Net gains and losses, including any interest, dividend income and movements in provisionally priced sales agreements, are recognised in the Consolidated Income Statement. Forward exchange contracts and interest rate swaps held for hedging purposes are accounted for as either cash flow or fair value hedges. Any derivative instrument fair value change that does not qualify for hedge accounting is recognised immediately in the Consolidated Income Statement.
Amortised cost	Financial assets held at amortised cost are subsequently measured at amortised cost using the effective interest method. The amortised cost is reduced by impairment losses. Interest income, foreign exchange gains and losses, impairments and any gain or loss on derecognition, are recognised in the Consolidated Income Statement.
Investments in equity instruments designated as FVOCI	Investments in equity instruments designated as FVOCI are subsequently measured at fair value. Dividends are recognised as income in the Consolidated Income Statement unless the dividend clearly represents a recovery of part of the cost of the investment. Other gains and losses are recognised in other comprehensive income and are not reclassified to the Consolidated Income Statement.

The measurement of fair value of financial assets is based on quoted market prices in active markets for identical assets. Where no price information is available from a quoted market source, alternative market mechanisms or recent comparable transactions, the fair value is estimated based on the Group's views on relevant future prices, net of valuation allowances to accommodate liquidity, modelling, credit and other risks implicit in such estimates.

(iii) Financial liabilities: Classification and subsequent measurement

Financial liabilities are classified as FVTPL, financial guarantee contracts or as measured at amortised cost. A financial liability is classified as FVTPL if it is classified as held for trading, it is a derivative, or it is designated as such on initial recognition. Financial liabilities held at FVTPL are measured at fair value, and net gains and losses, including any interest expense, are recognised in the Consolidated Income Statement. Financial guarantee contracts are initially measured at fair value and subsequently measured at the higher of the expected credit loss and the amount initially recognised less the cumulative amount of guarantee fee income recognised, with changes in value recognised in the Consolidated Income Statement. Other financial liabilities are subsequently measured at amortised cost using the effective interest method. Interest expense and foreign exchange gains or losses are recognised in the Consolidated Income Statement. Any gain or loss on derecognition is also recognised in the Consolidated Income Statement.

(iv) Embedded derivatives

A derivative embedded within a hybrid contract, with a financial liability or non-financial host, is separated from the host and accounted for as a separate derivative if: the economic characteristics and risks are not closely related to the host; a separate instrument with the same terms as the embedded derivative would meet the definition of a derivative; and the hybrid contract is not measured at FVTPL. Embedded derivatives are measured at fair value with changes in fair value recognised in the Consolidated Income Statement.

A derivative embedded within a hybrid contract containing a financial asset host is not accounted for separately. The financial asset host together with the embedded derivative is required to be classified in its entirety as a financial asset held at FVTPL.

19. Financial assets and financial liabilities continued

(b) Accounting classification and fair value continued

The following table presents the financial assets and liabilities by class at their carrying amounts:

FY22 US\$M	Note	Held at FVTPL	Designated as FVOCI	Amortised cost	Total
Financial assets					
Cash and cash equivalents	16	-	-	2,365	2,365
Trade and other receivables ⁽¹⁾	9	143	-	554	697
Loans to equity accounted investments	9	-	-	7	7
Other financial assets:					
Derivative contracts		1	-	-	1
Total current financial assets		144	-	2,926	3,070
Trade and other receivables ⁽¹⁾	9	-	-	13	13
Loans to equity accounted investments	9	-	-	1,793	1,793
Other financial assets:					
Investments in equity instruments designated as FVOCI		-	25	-	25
Vendor loan facility		39	-	-	39
Total non-current financial assets		39	25	1,806	1,870
Total financial assets		183	25	4,732	4,940
Financial liabilities					
Trade and other payables ⁽²⁾	14	20	-	929	949
Lease liabilities	17	-	-	40	40
Other interest bearing liabilities	17	-	-	362	362
Other financial liabilities:					
Derivative contracts		6	-	-	6
Total current financial liabilities		26	-	1,331	1,357
Trade and other payables ⁽²⁾	14	-	-	7	7
Senior unsecured notes	17	-	-	689	689
Lease liabilities	17	-	-	610	610
Other interest bearing liabilities	17	-	-	126	126
Other financial liabilities:					
Contingent consideration		84	-	-	84
Total non-current financial liabilities		84	-	1,432	1,516
Total financial liabilities		110	-	2,763	2,873

(1) Excludes current input taxes of US\$140 million and non-current input and other taxes of US\$97 million included in other receivables. Refer to note 9 Trade and other receivables.

(2) Excludes current input taxes of US\$40 million and non-current input and other taxes of US\$1 million included in other creditors. Refer to note 14 Trade and other payables.

Notes to financial statements – Capital structure and financing continued

19. Financial assets and financial liabilities continued

(b) Accounting classification and fair value continued

FY21 US\$M	Note	Held at FVTPL	Designated as FVOCI	Amortised cost	Financial guarantee contracts	Total
Financial assets						
Cash and cash equivalents	16	-	-	1,613	-	1,613
Trade and other receivables ⁽¹⁾	9	120	-	365	-	485
Loans to equity accounted investments	9	-	-	10	-	10
Other financial assets:						
Derivative contracts		9	-	-	-	9
Other investments held at FVTPL		6	-	-	-	6
Total current financial assets		135	-	1,988	-	2,123
Trade and other receivables ⁽¹⁾	9	-	-	10	-	10
Loans to equity accounted investments	9	-	-	187	-	187
Other financial assets:						
Investments in equity instruments designated as FVOCI		-	121	-	-	121
Total non-current financial assets		-	121	197	-	318
Total financial assets		135	121	2,185	-	2,441
Financial liabilities						
Trade and other payables ⁽²⁾	14	18	-	734	15	767
Lease liabilities	17	-	-	37	-	37
Other interest bearing liabilities	17	-	-	371	-	371
Other financial liabilities:						
Derivative contracts		11	-	-	-	11
Total current financial liabilities		29	-	1,142	15	1,186
Trade and other payables	14	-	-	2	-	2
Lease liabilities	17	-	-	650	-	650
Other interest bearing liabilities	17	-	-	149	-	149
Total non-current financial liabilities		-	-	801	-	801
Total financial liabilities		29	-	1,943	15	1,987

(1) Excludes current input taxes of US\$32 million and non-current input and other taxes of US\$62 million included in other receivables. Refer to note 9 Trade and other receivables.
(2) Excludes current input taxes of US\$10 million included in other creditors. Refer to note 14 Trade and other payables.

19. Financial assets and financial liabilities continued

(b) Accounting classification and fair value continued

Measurement of fair value

The carrying values of the Group's financial assets and liabilities measured at amortised cost are equal to or approximate their respective fair values, except for senior unsecured notes, which have a fair value of US\$650 million (FY21: US\$nil), and lease liabilities, for which a fair value has not been determined. The fair value of the Group's senior unsecured notes is estimated based on quoted market prices at the reporting date and are classified as Level 1 on the fair value hierarchy as shown below.

The following table shows the Group's financial assets and liabilities carried at fair value with reference to the nature of valuation inputs used:

Level 1 Valuation is based on unadjusted quoted prices in active markets for identical financial assets and liabilities.

Level 2 Valuation is based on inputs (other than quoted prices included in Level 1) that are observable for the financial asset or liability, either directly (i.e. as unquoted prices) or indirectly (i.e. derived from prices).

Level 3 Valuation includes inputs that are not based on observable market data.

FY22 US\$M	Level 1	Level 2	Level 3	Total
Financial assets and liabilities				
Trade and other receivables	-	143	-	143
Trade and other payables	-	(20)	-	(20)
Derivative contract assets	1	-	-	1
Derivative contract liabilities	(6)	-	-	(6)
Investments in equity instruments designated as FVOCI	25	-	-	25
Vendor loan facility ⁽¹⁾	-	-	39	39
Contingent consideration	-	-	(84)	(84)
Total	20	123	(45)	98

(1) The vendor loan facility relates to funding provided to a subsidiary of Seriti as part of the Group's divestment of SAEC. Refer to note 33 Discontinued operation.

FY21 US\$M	Level 1	Level 2	Level 3	Total
Financial assets and liabilities				
Trade and other receivables	-	120	-	120
Trade and other payables	-	(4)	(14)	(18)
Derivative contract assets	9	-	-	9
Derivative contract liabilities	(11)	-	-	(11)
Investments in equity instruments designated as FVOCI	55	-	66	121
Other investments held at FVTPL	-	6	-	6
Total	53	122	52	227

Level 3 financial assets and liabilities

The following table shows the movements in the Group's Level 3 financial assets and liabilities:

US\$M	FY22	FY21
At the beginning of the financial year	52	35
Addition of financial assets/(liabilities)	(97)	(14)
Derecognition of financial assets and financial liabilities	(5)	-
Realised gains/(losses) recognised in the Consolidated Income Statement ⁽¹⁾	-	(8)
Unrealised gains/(losses) recognised in the Consolidated Income Statement ⁽¹⁾	52	-
Unrealised gains/(losses) recognised in the Consolidated Statement of Comprehensive Income ⁽²⁾	(47)	39
At the end of the financial year	(45)	52

(1) Recognised in expenses excluding net finance costs in the Consolidated Income Statement.

(2) Recognised in the financial assets reserve in the Consolidated Statement of Comprehensive Income.

Notes to financial statements – Capital structure and financing continued

19. Financial assets and financial liabilities continued

(b) Accounting classification and fair value continued

Sensitivity analysis

The carrying amount of Level 3 financial assets and liabilities that are fair valued using inputs other than observable market data are calculated using appropriate valuation models, including discounted cash flow modelling, with inputs such as commodity prices, foreign exchange rates and inflation. The potential effect of using reasonably possible alternative assumptions in these models, based on directionally changing all the significant inputs either favourably or unfavourably by 10 per cent while holding all other variables constant, is shown in the following table:

FY22 US\$M	Carrying amount	Significant inputs	Profit/(loss) after tax	
			Favourable	Unfavourable
Financial assets and liabilities				
Other financial assets and liabilities held at FVTPL	(45)	Production volumes ⁽¹⁾	69	(8)
Total	(45)		69	(8)

(1) Production volumes are based on future production estimates.

FY21 US\$M	Carrying amount	Significant inputs	Profit/(loss) after tax		Other comprehensive income/ (loss), net of tax	
			Favourable	Unfavourable	Favourable	Unfavourable
Financial assets and liabilities						
Investments in equity instruments designated as FVOCI	66	Alumina price				
		Aluminium price				
		Foreign exchange rate	-	-	35	(39)
Trade and other payables	(14)	Coal price				
		Export volumes	12	(8)	-	-
Total	52		12	(8)	35	(39)

(c) Capital management

The Group allocates capital in line with its strategy and capital management framework. The Group's priorities for cash flow are to:

- Maintain safe and reliable operations and an investment grade credit rating through the cycle;
- Distribute a minimum of 40 per cent of Underlying earnings as dividends to shareholders following each six-month reporting period; and
- Maximise total shareholder returns through other alternatives including special dividends, share buy-backs and high return investment opportunities which compete for capital.

20. Share capital

	FY22		FY21	
	Shares	US\$M	Shares	US\$M
Share capital				
At the beginning of the financial year	4,674,538,013	13,597	4,846,267,883	13,943
Shares bought back and cancelled	(46,106,429)	(128)	(171,729,870)	(346)
At the end of the financial year	4,628,431,584	13,469	4,674,538,013	13,597
Treasury shares				
At the beginning of the financial year	(11,676,185)	(22)	(22,495,193)	(49)
(Purchase)/sale of shares by ESOP Trusts	(6,379,586)	(22)	262,531	3
Employee share awards vested	6,588,264	12	10,556,477	24
At the end of the financial year	(11,467,507)	(32)	(11,676,185)	(22)

Shares entitle the holder to participate in dividends and the proceeds on winding up of the Group in proportion to the number of shares held. On a show of hands every holder of shares present at a meeting in person or by proxy, is entitled to one vote, and upon a poll each share is entitled to one vote.

Incremental costs directly attributable to the issuance of shares, net of any income tax effects, are recognised as a deduction from equity.

Notes to financial statements – Other notes

21. Auditor's remuneration

The auditor of the Group is KPMG.

US\$'000	FY22	FY21
Fees payable to the Group's auditor for assurance services		
Audit and review of financial statements	4,448	4,452
Other assurance services ⁽¹⁾	625	550
Total auditor's remuneration	5,073	5,002

(1) Mainly comprises assurance in respect of the Group's sustainability reporting.

22. Pension and other post-retirement obligations

The Group operates or participates in a number of pension (including superannuation) schemes throughout the world. The funding of the schemes complies with local regulations. The assets of the schemes are generally held separately from those of the Group and are administered by trustees or management boards. Full actuarial valuations are prepared for the schemes.

Defined contribution pension schemes

The Group contributed US\$59 million (FY21: US\$76 million) to defined contribution plans and multi-employer defined contribution plans. These contributions are expensed as incurred.

Defined benefit pension schemes (closed schemes)

At 30 June 2022, the Group had defined benefit obligations of US\$57 million (FY21: US\$68 million) and defined benefit scheme assets with a fair value of US\$46 million (FY21: US\$54 million) with a net liability recognised in the Consolidated Balance Sheet of US\$11 million (FY21: US\$14 million).

The fair value of scheme assets by major asset class is as follows:

US\$M	FY22	FY21
Bonds ⁽¹⁾	31	38
Equities	6	6
Cash and cash equivalents	3	4
Other ⁽²⁾	6	6
Total	46	54

(1) Comprises Fixed Interest Government bonds of US\$6 million (FY21: US\$9 million), Index Linked Government bonds of US\$20 million (FY21: US\$22 million) and Corporate bonds of US\$5 million (FY21: US\$7 million).

(2) Primarily comprises property and alternative investments in Australia.

Defined benefit post-retirement medical schemes (closed schemes)

At 30 June 2022, the Group had post-retirement medical scheme obligations of US\$23 million (FY21: US\$27 million). The post-retirement medical scheme is unfunded.

Weighted average maturity profile of schemes

The weighted average duration of the defined benefit obligations is 7 years (FY21: 9 years) and 10 years (FY21: 10 years) for the defined benefit pension schemes and post-retirement medical scheme respectively.

Risks associated with defined benefit pension and post-retirement medical schemes

The Group's defined benefit pension and post-retirement medical schemes expose the Group to the risks pertaining to asset value volatility, uncertainty in future benefit payments and uncertainty in future contribution requirements.

23. Employee share ownership plans

At 30 June 2022, the Group had the following employee share ownership arrangements:

Awards granted to Lead Team members⁽¹⁾

Long-Term Incentive Plan	FY19, FY20, FY21, FY22
Deferred Short-Term Incentive Plan	FY20, FY21
Executive Transitional Award Plan	FY20, FY21, FY22
Management Share Plan	FY21 ⁽²⁾

(1) Awards granted on 7 December 2018, 6 December 2019, 4 December 2020 and 6 December 2021.

(2) During FY21, Jason Economidis, as acting Chief Operating Officer, participated in the Management Share Plan and not the Long-Term Incentive Plan.

Awards granted to eligible employees⁽¹⁾

Management Share Plan	FY19, FY20, FY21, FY22
AllShare Plan	2019, 2020, 2021
Management Transitional Award Plan	FY19, FY20

(1) Awards granted on 7 December 2018, 17 May 2019, 6 December 2019, 15 May 2020, 4 December 2020, 7 December 2020, 6 May 2021, 6 December 2021 and 9 May 2022.

All awards take the form of rights to receive one share in South32 Limited for each right granted, subject to performance and/or service conditions being met. Further information on the vesting conditions of performance rights granted is disclosed in the Remuneration report. A portion of the 2019, 2020 and 2021 AllShare Plan awards (participants located in Colombia and Mozambique) take the form of rights to receive a cash payment equivalent to the value of South32 Limited shares at the time of payment. Employees in Africa are granted rights on the JSE and all other employees are granted rights on the ASX.

Awards do not confer any dividend or voting rights until they convert into shares at vesting. In addition, the awards do not confer any rights to participate in a share issue, however, there is discretion under the plans to adjust the awards in response to a variation in South32 Limited's share capital.

The AllShare JSE plan is eligible to receive a payment equal to the dividend amount that would have been earned on the underlying shares awarded to those participants (Dividend Equivalent Payment). The Dividend Equivalent Payment is made to participants once the underlying shares are issued or transferred to them. No Dividend Equivalent Payment is made in respect of awards that have lapsed or have been forfeited. No other awards are eligible for a Dividend Equivalent Payment.

(a) Description of share-based payment arrangements

(i) Recurring share-based payment plans

The awards listed below are subject to the general conditions noted above and may be granted annually subject to approval by shareholders at the annual general meeting for awards to the CEO and by the Board of Directors for all other awards.

FY19, FY20, FY21 and FY22 Long-Term Incentive Plan

The Long-Term Incentive Plan is the Group's long-term incentive plan for Lead Team members.

Awards have a four-year performance period from 1 July 2018 to 30 June 2022, 1 July 2019 to 30 June 2023, 1 July 2020 to 30 June 2024 and 1 July 2021 to 30 June 2025, respectively.

The FY21 Long-Term Incentive Plan award granted to the CEO is subject to a specific vesting cap imposed by the Board of Directors. For other Lead Team members, the Board of Directors retains the discretion to apply a vesting cap to limit the value of the rights which may vest in the ordinary course.

FY20 and FY21 Deferred Short-Term Incentive Plan

The Deferred Short-Term Incentive Plan is the Group's short-term incentive plan for Lead Team members. Awards vest in August 2022 and August 2023 respectively, provided participants remain employed by the Group.

FY19, FY20, FY21 and FY22 Management Share Plan

The Management Share Plan is the Group's long-term incentive plan for eligible employees below the Lead Team. The Management Share Plan comprises two elements:

- Retention rights vesting in August 2022, August 2023 and August 2024 provided participants remain employed by the Group; and
- Performance rights vesting in August 2022, August 2023, August 2024 and August 2025 subject to performance conditions and provided participants remain employed by the Group.

For the FY21 Management Share Plan awards, the Board of Directors retains the discretion to apply a vesting cap to limit the value of the rights which may vest in the ordinary course.

2019, 2020 and 2021 AllShare Plan

The AllShare Plan is the Group's employee share plan for employees not eligible to participate in the other employee share plans. Awards to the value of at least US\$1,250 per employee are granted annually. Awards will vest provided participants remain employed by the Group. The vesting period depends on the participants' location at the grant date:

- Participants in Africa: August 2022, August 2023 and August 2024; and
- Participants elsewhere: August 2022 and August 2023.

23. Employee share ownership plans continued

(a) Description of share-based payment arrangements continued

(ii) Transitional share-based payment plans

The awards listed below are subject to the general conditions noted above and are either one-off or will not be granted on an ongoing basis.

FY20, FY21 and FY22 Executive Transitional Award Plan

The Executive Transitional Award Plan is a one-off grant made to Lead Team members in recognition of their adjustment from the Management Share Plan (three year retention rights and four year performance rights) to the four year plan at the Group. Awards have a three year performance period from 1 July 2019 to 30 June 2022, 1 July 2020 to 30 June 2023 and 1 July 2021 to 30 June 2024 respectively.

FY19 and FY20 Management Transitional Award Plan

The Management Transitional Award Plan is a grant made to certain eligible employees to bridge the gap between their total target reward at BHP and their total target reward at the Group. FY20 was the last year in which awards were made. The FY19 and FY20 Management Transitional Award Plan has the same conditions as the FY19 and FY20 Management Share Plan and comprises both service and performance conditions.

(b) Employee Share Ownership Plan Trusts

The South32 Limited Employee Incentive Plans Trust (the Australian Trust) and the South32 South African AllShare Trust (the South African Trust) are discretionary trusts for the benefit of employees of South32 Limited and its subsidiaries.

The trustee for the Australian Trust (CPU Share Plans Pty Ltd) is an independent company, resident in Australia. The trustees for the South African Trust are made up of employer and employee representatives per the Broad-Based Black Economic Empowerment (B-BBEE) requirements under South African law. The Trusts use funds provided by South32 Limited and/or its subsidiaries to acquire shares to enable awards to be made or satisfied under the Group employee share ownership plans.

The shares may be acquired by purchase in the market or by subscription at not less than nominal value.

(c) Measurement of fair values

The fair value at grant date of equity-settled share awards is charged to the Consolidated Income Statement, net of tax, over the period for which the benefits of employee services are expected to be derived. The corresponding accrued employee entitlement is recorded in the employee share awards reserve.

Where awards are forfeited because non-market based vesting conditions are not satisfied, the expense previously recognised is proportionally reversed. If awards do not vest due to a market performance condition not being met, the expense is recognised in full, and the share awards reserve is released to retained earnings. Where shares in South32 Limited are acquired by on-market purchases prior to settling the vested entitlement, the cost of the acquired shares is carried as treasury shares and deducted from equity. Where awards are satisfied by delivery of acquired shares, any difference between their acquisition cost and the cumulative remuneration expense recognised is charged directly to retained earnings, net of tax.

The fair value of performance rights is measured using a Monte Carlo methodology. This model considers the following:

- Expected life of the award;
- Current market price of the underlying shares;
- Expected volatility (of the individual company and of each peer group);
- Expected dividends;
- Risk-free interest rate; and
- Market based performance hurdles.

The fair value of retention rights is measured using a Black Scholes methodology. This model considers the following:

- Expected life of the award;
- Current market price of the underlying shares;
- Expected volatility;
- Expected dividends; and
- Risk-free interest rate.

Notes to financial statements – Other notes continued

23. Employee share ownership plans continued

(c) Measurement of fair values continued

The inputs used in the measurement of the fair values at grant date of the equity-settled share-based payments plans were as follows:

FY22	Fair value at grant date (US\$) ⁽¹⁾	Share price at grant date (US\$)	Expected volatility (%) ⁽²⁾	Expected life (in years) ⁽²⁾	Risk-free interest rate based on government bonds (%) ⁽¹⁾
Recurring plans					
FY22 Long-Term Incentive Plan	1.65	2.60	30	4	0.85
FY21 Deferred Short-Term Incentive Plan	2.36	2.60	30	2	0.01
FY22 Management Share Plan – Retention rights	2.25 - 2.26	2.34 - 2.60	30	3	0.43 - 5.17
FY22 Management Share Plan – Performance rights	1.65 - 1.66	2.34 - 2.60	30	4	0.85 - 5.61
2021 AllShare Plan	2.36 - 2.57	2.34 - 2.60	30	2 - 3	0.01 - 5.17
Transitional plans					
FY22 Executive Transitional Award Plan	1.68	2.60	30	3	0.43

(1) Represents the range of grant date fair values, expected life, and risk-free interest rates based on the amount of rights granted on the ASX or the JSE during the year, and the variations in offer terms and grant dates of each plan where applicable. The risk-free interest rate and expected volatility does not materially impact service-based awards.

(2) Expected volatility is based on the historical South32 Limited share price volatility at the grant date.

FY21	Fair value at grant date (US\$)	Share price at grant date (US\$)	Expected volatility (%)	Expected life (in years)	Risk-free interest rate based on government bonds (%)
Recurring plans					
FY21 Long-Term Incentive Plan	0.88 - 0.97	1.94	35	4	0.25
FY20 Deferred Short-Term Incentive Plan	1.76	1.94	35	2	0.07
FY21 Management Share Plan - Retention rights	1.69 - 1.74	1.94 - 1.95	35	3	0.16 - 5.17
FY21 Management Share Plan - Performance rights	0.97 - 1.01	1.94 - 1.95	35	4	0.25 - 5.77
2020 AllShare Plan	1.76 - 1.89	1.94 - 1.95	35	2 - 3	0.07 - 5.17
Transitional plans					
FY21 Executive Transitional Award Plan	0.98	1.94	35	3	0.16

23. Employee share ownership plans continued

(d) Reconciliation of outstanding share awards

None of the awards listed below have an exercise price or are exercisable at 30 June 2022.

FY22 Number of rights	Rights at beginning of the year	Granted during the year	Vested during the year	Forfeited during the year	Lapsed during the year	Rights at end of the year
Recurring plans						
FY18 Long-Term Incentive Plan	5,414,194	-	-	-	(5,414,194)	-
FY19 Long-Term Incentive Plan	4,325,579	-	-	(180,082)	-	4,145,497
FY20 Long-Term Incentive Plan	5,267,666	-	-	(501,907)	-	4,765,759
FY21 Long-Term Incentive Plan	8,221,730	-	-	(1,264,381)	-	6,957,349
FY22 Long-Term Incentive Plan	-	3,743,629	-	-	-	3,743,629
FY19 Deferred Short-Term Incentive Plan	1,071,486	-	(1,071,486)	-	-	-
FY20 Deferred Short-Term Incentive Plan	1,124,803	-	(273,623)	-	-	851,180
FY21 Deferred Short-Term Incentive Plan	-	907,232	-	-	-	907,232
FY18 Management Share Plan - Performance rights	5,825,828	-	-	-	(5,825,828)	-
FY19 Management Share Plan - Retention rights	1,422,901	-	(1,422,901)	-	-	-
FY19 Management Share Plan - Performance rights	4,559,514	-	-	(245,622)	-	4,313,892
FY20 Management Share Plan - Retention rights	1,912,107	-	(222,563)	(187,116)	-	1,502,428
FY20 Management Share Plan - Performance rights ⁽¹⁾	5,688,667	29,927	-	(593,751)	-	5,124,843
FY21 Management Share Plan - Retention rights ⁽¹⁾	3,364,250	19,935	(170,219)	(511,533)	-	2,702,433
FY21 Management Share Plan - Performance rights ⁽¹⁾	8,701,674	49,838	-	(1,385,453)	-	7,366,059
FY22 Management Share Plan - Retention rights	-	2,404,086	(28,207)	(150,947)	-	2,224,932
FY22 Management Share Plan - Performance rights	-	3,864,676	-	(265,447)	-	3,599,229
2018 AllShare Plan	1,312,900	-	(1,304,825)	(8,075)	-	-
2019 AllShare Plan ⁽¹⁾	5,596,305	9,295	(3,493,490)	(153,725)	-	1,958,385
2020 AllShare Plan ⁽¹⁾	6,782,400	13,600	(178,400)	(502,400)	-	6,115,200
2021 AllShare Plan	-	4,521,430	(28,620)	(169,070)	-	4,323,740
Transitional plans						
FY19 Executive Transitional Award Plan	81,967	-	-	-	(81,967)	-
FY20 Executive Transitional Award Plan	129,283	-	-	-	-	129,283
FY21 Executive Transitional Award Plan	154,702	-	-	-	-	154,702
FY22 Executive Transitional Award Plan	-	195,128	-	-	-	195,128
FY18 Management Transitional Award Plan	622,195	-	-	-	(622,195)	-
FY19 Management Transitional Award Plan	284,923	-	(52,640)	(41,324)	-	190,959
FY20 Management Transitional Award Plan	143,183	-	-	(53,513)	-	89,670
Total awards	72,008,257	15,758,776	(8,246,974)	(6,214,346)	(11,944,184)	61,361,529

(1) Retrospective grants related to prior year plans.

Notes to financial statements – Other notes continued

24. Contingent assets and liabilities

Contingent assets and liabilities not otherwise provided for in the consolidated financial statements are categorised as arising from:

US\$M	FY22	FY21
Actual or potential litigation	427	427
Total contingent liabilities	427	427
Actual or potential litigation	156	-
Total contingent assets	156	-

Actual or potential litigation liabilities primarily relate to numerous tax assessments or matters relating to transactions in prior years in Colombia and Brazil. Additionally, there are a number of legal claims or potential claims against the Group, the outcome of which cannot be foreseen at present, and for which no amounts have been disclosed.

Actual or potential litigation assets primarily relate to potential recovery of pre-closing tax liabilities in respect of the Sierra Gorda acquisition, with allocation of liability for these pre-closing tax liabilities being disputed with the vendors.

The Group has entered into various counter-indemnities of bank and performance guarantees related to its own future performance which are in the normal course of business. Additionally, the Group has provided indemnities against certain liabilities as part of agreements for the disposal of business operations. Having taken appropriate legal advice, the Group believes that a material liability arising from the indemnities provided is remote.

25. Subsidiaries

Significant subsidiaries of the Group, which are those with the most significant contribution to the Group's net profit/(loss) or net assets, are as follows:

Significant subsidiaries	Country of incorporation	Principal activity	Effective interest %	
			FY22	FY21
African Metals (Pty) Ltd	South Africa	Investment holding company	100	100
Arizona Minerals Inc.	United States	Exploration and development	100	100
Cerro Matoso SA	Colombia	Integrated laterite ferronickel mining and smelting complex	99.9	99.9
Dendrobium Coal Pty Ltd	Australia	Metallurgical coal mine	100	100
Endeavour Coal Pty Ltd	Australia	Metallurgical coal mine	100	100
Hillside Aluminium (Pty) Ltd	South Africa	Aluminium smelter	100	100
Illawarra Coal Holdings Pty Ltd	Australia	Investment holding company	100	100
Illawarra Services Pty Ltd	Australia	Coal washery, rail and road transportation	100	100
South32 Finance 1 B.V.	Netherlands	Financing company	100	-
South32 Finance 2 B.V.	Netherlands	Financing company	100	-
South32 Aluminium (Holdings) Pty Ltd	Australia	Investment holding company	100	100
South32 Aluminium (RAA) Pty Ltd	Australia	Interest in a joint operation	100	100
South32 Aluminium (Worsley) Pty Ltd	Australia	Interest in a joint operation	100	100
South32 Cannington Pty Ltd	Australia	Silver, lead and zinc mine	100	100
South32 Eagle Downs Pty Ltd	Australia	Interest in a joint operation	100	100
South32 Group Operations Pty Ltd	Australia	Administrative, management and support services	100	100
South32 Investment 1 B.V.	Netherlands	Interest in a joint operation	100	100
South32 Marketing Pte Ltd	Singapore	Sales, marketing and distribution	100	100
South32 Minerals SA	Brazil	Interest in a joint operation	100	100
South32 SA Investments Ltd	United Kingdom	Investment holding company	100	100
South32 SA Ltd	South Africa	Administrative, management and support services	100	100
South32 Sierra Gorda SpA	Chile	Investment holding company	100	-
South32 Treasury Ltd	Australia	Financing company	100	100
South32 USA Exploration Inc.	United States	Exploration	100	100

Subsidiaries are entities controlled by the parent entity. Control exists where the parent entity is exposed or has rights to variable returns from its involvement with the subsidiary and has the ability to affect those returns through its power over the subsidiary. A parent entity has power over the subsidiary when it has existing rights to direct the relevant activities of the subsidiary which are those which significantly affect the subsidiary's returns. The financial statements of subsidiaries are included in the consolidated financial statements for the period they are controlled.

26. Equity accounted investments

The Group's interests in equity accounted investments with the most significant contribution to the Group's net profit/(loss) or net assets, are as follows:

Significant joint ventures	Country of incorporation	Principal activity	Reporting date	Acquisition date	Ownership interest %	
					FY22	FY21
Australia Manganese ⁽¹⁾	Australia	Manganese ore mine	30 June 2022	8 May 2015	60	60
South Africa Manganese ⁽²⁾	South Africa	Manganese ore mines	30 June 2022	3 February 2015	60	60
Sierra Gorda ⁽³⁾	Chile	Copper mine	31 December 2022 ⁽³⁾	22 February 2022 ⁽⁴⁾	45	-

(1) Australia Manganese consists of an investment in Groote Eylandt Mining Company Pty Ltd (GEMCO).

(2) The Group holds a 60 per cent interest in Samancor Holdings (Pty) Ltd (Samancor). Samancor indirectly owns 74 per cent of Hotazel Manganese Mines (Pty) Ltd (HMM), which gives the Group its indirect ownership interest of 44.4 per cent. The remaining 26 per cent of HMM is owned by B-BBEE entities, of which 17 per cent of the interests were acquired using vendor finance with the loans repayable via distributions attributable to these parties, pro rata to their share in HMM. Until these loans are repaid, the Group's interest in HMM is accounted for at 54.6 per cent.

(3) Sierra Gorda consists of an investment in Sierra Gorda Sociedad Contractual Minera. The reporting date differs to that of the Group and is consistent with common practice in its country of incorporation.

(4) Refer to note 31 Acquisition of equity accounted investments.

A reconciliation of the carrying amount of the equity accounted investments is set out below:

US\$M	FY22	FY21
At the beginning of the financial year	380	460
Share of profit/(loss) ⁽¹⁾	272	133
Other comprehensive income/(loss), net of tax	(3)	(3)
Dividends received from equity accounted investments	(224)	(197)
Acquisition of equity accounted investments ⁽²⁾	45	-
Disposal of a discontinued operation ⁽³⁾	-	(13)
At the end of the financial year	470	380

(1) Includes a share of profit/(loss) relating to a discontinued operation of US\$nil (FY21: US\$(8) million). Refer to note 33 Discontinued operation.

(2) Refer to note 31 Acquisition of equity accounted investments.

(3) Refer to note 33 Discontinued operation.

Carrying amount of equity accounted investments

US\$M	FY22	FY21
Australia Manganese	143	106
South Africa Manganese	180	189
Sierra Gorda ⁽¹⁾	30	-
Individually immaterial ⁽²⁾	117	85
Total	470	380

(1) The joint venture is considered significant to the Group due to the value of the purchased credit-impaired receivable. Refer to note 19 Financial assets and financial liabilities.

(2) Individually immaterial consists of investments in Samancor Marketing Pte Ltd (60 per cent), MRN (33 per cent) and Port Kembla Coal Terminal Ltd (16.7 per cent) in FY22 and Samancor Marketing Pte Ltd (60 per cent) and Port Kembla Coal Terminal Ltd (16.7 per cent) in FY21.

Share of profit/(loss) of equity accounted investments

US\$M	FY22	FY21
Australia Manganese	211	115
South Africa Manganese	31	20
Sierra Gorda	30	-
Individually immaterial ⁽¹⁾	-	(2)
Total	272	133

(1) Individually immaterial consists of investments in Samancor Marketing Pte Ltd (60 per cent) of US\$2 million, MRN (33 per cent) of US\$(3) million and Port Kembla Coal Terminal Ltd (16.7 per cent) of US\$1 million in FY22 and Samancor Marketing Pte Ltd (60 per cent) of US\$7 million, Port Kembla Coal Terminal Ltd (16.7 per cent) of US\$(1) million and Richards Bay Coal Terminal Pty Ltd (21.1 per cent) of US\$(8) million in FY21. The share of profit/(loss) from Richards Bay Coal Terminal Pty Ltd in FY21 was included in the disposal of a discontinued operation. Refer to note 33 Discontinued operation.

Notes to financial statements – Other notes continued

26. Equity accounted investments continued

The following table summarises the financial information relating to each significant equity accounted investment:

FY22 US\$M	Joint ventures		
	Australia Manganese	South Africa Manganese	Sierra Gorda
Reconciliation of the carrying amount of equity accounted investments			
Current assets	328	258	485
Non-current assets	836	516	4,252
Current liabilities	(260)	(81)	(367)
Non-current liabilities	(665)	(290)	(4,303)
Net assets – 100%	239	403	67
Net assets – the Group's share	143	180	30
Carrying amount of equity accounted investments	143	180	30
Reconciliation of share of profit/(loss) of equity accounted investments			
Revenue – 100%	1,239	602	535
Profit/(loss) after tax – 100%	351	59	67
Profit/(loss) after tax – the Group's share	211	31	30
Share of profit/(loss) of equity accounted investments	211	31	30
Other balances of equity accounted investments presented on a 100% basis			
Cash and cash equivalents ⁽¹⁾	-	27	154
Non-current financial liabilities (excluding trade and other payables and provisions)	(173)	(19)	(4,177)
Depreciation and amortisation	(136)	(26)	(129)
Interest income	-	3	-
Interest expense	(20)	(13)	(139)
Income tax (expense)/benefit (excluding royalty related tax)	(208)	(63)	(23)

(1) South Africa Manganese cash and cash equivalents includes US\$27 million, on a 100 per cent basis, which is restricted by legal or contractual arrangements.

FY21 US\$M	Joint ventures	
	Australia Manganese	South Africa Manganese
Reconciliation of the carrying amount of equity accounted investments		
Current assets	271	237
Non-current assets	812	539
Current liabilities	(233)	(89)
Non-current liabilities	(673)	(277)
Net assets – 100%	177	410
Net assets – the Group's share	106	190
Consolidation adjustments	-	(1)
Carrying amount of equity accounted investments	106	189
Reconciliation of share of profit/(loss) of equity accounted investments		
Revenue – 100%	1,096	524
Profit/(loss) after tax – 100%	192	37
Profit/(loss) after tax – the Group's share	115	20
Share of profit/(loss) of equity accounted investments	115	20
Other balances of equity accounted investments presented on a 100% basis		
Cash and cash equivalents ⁽¹⁾	-	26
Non-current financial liabilities (excluding trade and other payables and provisions)	(222)	(28)
Depreciation and amortisation	(133)	(26)
Interest income	-	3
Interest expense	(23)	(24)
Income tax (expense)/benefit (excluding royalty related tax)	(179)	(8)

(1) South Africa Manganese cash and cash equivalents include US\$26 million, on a 100 per cent basis, which is restricted by legal or contractual arrangements.

The Group's share of contingent liabilities and capital expenditure commitments of significant equity accounted investments as at 30 June 2022 was US\$6 million (FY21: US\$6 million) and US\$27 million (FY21: US\$18 million) respectively.

26. Equity accounted investments continued

The Group uses the term 'equity accounted investments' to refer to associates and joint ventures collectively.

Associates are entities in which the Group holds significant influence. If the Group holds 20 per cent or more of the voting power of an entity, it is presumed that the Group has significant influence, unless it can be clearly demonstrated that this is not the case. Significant influence can also arise when the Group has less than 20 per cent of the voting power but it can be demonstrated that the Group has the power to participate in the financial and operating policy decisions of the associate. Investments in associates are accounted for using the equity method.

Joint ventures are joint arrangements in which the parties with joint control of the arrangement have rights to the net assets of the arrangement. Joint arrangements exist when two or more parties have joint control. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require the unanimous consent of the parties sharing control. A separate vehicle, not the parties, will have the rights to the assets and obligations for the liabilities, relating to the arrangement. If more than an insignificant share of output from a joint venture is sold to third parties, this indicates that the joint venture is not dependent on the parties to the arrangement for funding and that the parties to the arrangement have no obligation for the liabilities of the arrangement. Joint ventures are accounted for using the equity method.

Equity accounted investments are initially recorded at cost, including the value of any goodwill on acquisition. In subsequent periods, the carrying amount of the investment is adjusted to reflect the share of post-acquisition profit or loss and other comprehensive income. After application of the equity method, including recognising the Group's share of the joint ventures' results, the value of the investment will be assessed for impairment if there is objective evidence that an impairment of the investment may have occurred. Where the carrying value of an equity accounted investment is reduced to nil after having applied equity accounting principles (and the Group has no legal or constructive obligation to make further payments, nor has made payments on behalf of the associate or joint venture), dividends received from the associate or joint venture will be recognised in share of profit/(loss) of equity accounted investments in the Consolidated Income Statement.

27. Interests in joint operations

Significant joint operations of the Group, which are those with the most significant contributions to the Group's net profit/(loss) or net assets, are as follows:

Significant joint operations	Country of operation	Principal activity	Acquisition date	Effective interest %	
				FY22	FY21
Ambler Metals	United States	Base metals exploration and development option	11 February 2020	50	50
Brazil Alumina	Brazil	Integrated bauxite mine and alumina refinery	3 July 2014	36	36
Brazil Aluminium	Brazil	Aluminium smelter	3 July 2014	40	40
Eagle Downs Metallurgical Coal	Australia	Metallurgical coal exploration and development option	14 September 2018	50	50
Mozal Aluminium ⁽¹⁾	Mozambique	Aluminium smelter	27 March 2015 ⁽²⁾	63.7	47.1
Worsley Alumina ⁽¹⁾	Australia	Integrated bauxite mine and alumina refinery	8 May 2015	86	86

(1) While the Group holds a greater than 50 per cent interest in Worsley Alumina and Mozal Aluminium, participants jointly approve certain matters and are entitled to receive their share of output from the arrangement.

(2) The Group initially acquired a 47.1 per cent interest on 27 March 2015 and subsequently acquired a further 16.6 per cent interest on 31 May 2022. Refer to note 30 Acquisition of subsidiaries and joint operations.

Joint operations are joint arrangements in which the parties with joint control have rights to the assets and obligations for the liabilities relating to the arrangement. The activities of a joint operation are primarily designed for the provision of output to the parties to the arrangement, indicating that:

- The parties have the rights to substantially all the output and economic benefits of the assets of the arrangement; and
- All liabilities are satisfied by the joint participants through their purchases of that output. This indicates that, in substance, the joint participants have an obligation for the liabilities of the arrangement.

The consolidated financial statements of the Group include its share of the assets and liabilities, revenues and expenses arising jointly or otherwise from those operations and its revenue derived from the sale of its share of the output from the joint operation. All such amounts are measured in accordance with the terms of each arrangement, which are usually in proportion to the Group's interest in the joint operation.

The assets in these joint operations are restricted to the extent that they are only available to be used by the joint operation itself and not by other operations of the Group. For certain joint operations, the Group has also either pledged, mortgaged or provided a cross charge to joint operation partners over assets within the joint operation.

28. Key management personnel

(a) Key management personnel compensation

US\$'000	FY22	FY21
Short-term employee benefits	6,321	6,942
Post-employment benefits	137	182
Other long-term benefits	293	286
Termination benefits	428	-
Share-based payments	4,764	4,611
Total	11,943	12,021

(b) Transactions with key management personnel

There were no transactions with key management personnel during the year ended 30 June 2022 (FY21: US\$nil).

(c) Loans to key management personnel

On 22 June 2021, the Group made an interest free loan of US\$620 thousand to Mike Fraser in relation to his South African income tax payable on his Group remuneration. The final instalment to repay the loan in full was made on 24 November 2021. There are no other loans with any key management personnel (FY21: US\$nil).

(d) Transactions with key management personnel related entities

There were no transactions with entities controlled or jointly controlled by key management personnel and there were no outstanding amounts with those entities as at 30 June 2022 (FY21: US\$nil).

29. Related party transactions

(a) Parent entity

The ultimate parent entity of the Group is South32 Limited, which is domiciled and incorporated in Australia.

(b) Subsidiaries, joint ventures and associates

The interests in subsidiaries, joint ventures and associates are disclosed in notes 25 and 26.

(c) Key management personnel

The compensation of, and loans to, key management personnel are disclosed in note 28.

(d) Pension and other post-retirement obligations

The pension and other post-retirement obligations are disclosed in note 22.

(e) Transactions with related parties

Transactions with related parties US\$'000	Joint ventures		Associates	
	FY22	FY21	FY22	FY21
Sales of goods and services	360,674	239,670	3,961	4,148
Purchases of goods and services	-	2	53,107	51,489
Interest income	60,661	4,912	-	-
Dividend income	224,424	197,164	-	-
Interest expense	2,109	1,816	-	-
Increase/(decrease) in short-term financing arrangements	49,530	1,000	-	-
Increase/(decrease) in loans with related parties	1,619,366	10,800	(17,237)	(5,759)

Outstanding balances with related parties US\$'000	Joint ventures		Associates	
	FY22	FY21	FY22	FY21
Trade and sundry amounts owing to related parties	748	206	973	176
Other amounts owing to related parties ⁽¹⁾	334,530	285,000	-	-
Trade and sundry amounts owing from related parties	30,114	31,539	769	318
Loan amounts owing from related parties ⁽²⁾⁽³⁾⁽⁴⁾	1,750,166	130,800	49,419	66,656

(1) Other amounts owing to joint ventures relate to short-term deposits and cash managed by the Group on behalf of its equity accounted investments. Interest is paid based on the three-month London Inter-Bank Offer Rate less a margin of 0.05 per cent and the one-month Johannesburg Inter-Bank Agreed Rate.

(2) Loan amounts owing from GEMCO include an interest bearing loan which is repayable by 2 January 2024. Interest is paid based on the three-month London Inter-Bank Offer Rate plus a margin of 3 per cent.

(3) Loan amounts owing from Sierra Gorda include a purchased credit-impaired loan which has a face value of US\$2,073 million, incurs interest at 8 per cent per annum and is repayable by 15 December 2024. Refer note 19 Financial assets and financial liabilities.

(4) Loan amounts owing from Port Kembla Coal Terminal include an interest free loan which is repayable by 30 June 2030.

Sales to, and purchases from, related parties are transactions at market prices and on commercial terms, or under terms and prices that are no less favourable to the Group than those arranged with third parties. Outstanding balances at year end are unsecured and settlement mostly occurs in cash.

A subsidiary of the Group has guaranteed its equivalent 45 per cent share of the repayment of a US\$700 million revolving credit facility entered into by Sierra Gorda. At the date of acquisition of the Group's interest in Sierra Gorda, the facility was drawn down by US\$400 million and no further drawdowns have been made by Sierra Gorda since this date. The facility extends to 30 September 2024. No other guarantees are provided for, or have been received from, any related party.

30. Acquisition of subsidiaries and joint operations

Acquisition of additional interest in Mozal Aluminium

On 31 May 2022, the Group acquired an additional 16.6 per cent shareholding and related rights in Mozal Aluminium from its joint operating partner, MCA Metals Holding GmbH (Mitsubishi), through the exercise of its pre-emptive rights in the Mozal Aluminium joint operation. The transaction was completed for a total consideration of US\$200 million, of which US\$175 million was paid on completion and US\$25 million was paid in July 2022. The additional interest increases the Group's shareholding in the Mozal Aluminium joint operation to 63.7 per cent.

The Group acquired the additional interest in Mozal Aluminium in order to access additional outputs from the joint operation. Mozal Aluminium continues to be accounted for as a joint operation subsequent to the acquisition as the relevant decisions in relation to Mozal Aluminium are governed by unanimous consent of the joint operation participants, which includes South32 Investment 1 B.V. and the Industrial Development Corporation of South Africa. The acquisition was treated as a business combination.

The fair values of the consideration transferred and additional 16.6 per cent interest in the acquired identifiable assets and liabilities of Mozal Aluminium as at the date of the acquisition were as follows:

US\$M	FY22
Purchase consideration	
Cash	175
Deferred consideration ⁽¹⁾	25
Total consideration	200
Assets acquired and liabilities assumed	
Cash and cash equivalents	62
Trade and other receivables	4
Inventories	62
Property, plant and equipment	123
Intangible assets	2
Trade and other payables	(25)
Provisions	(19)
Total identifiable net assets at fair value	209
Gain on bargain purchase ⁽²⁾	(9)
Purchase consideration transferred	200
Cash outflow on acquisition	
Direct costs relating to the acquisition ⁽³⁾	176
Net cash acquired	(62)
Net consolidated cash outflow⁽⁴⁾	114

(1) The second and final instalment post completion adjustments was settled during July 2022.

(2) Recognised in other income in the Consolidated Income Statement.

(3) Inclusive of acquisition related transaction costs and other directly attributable costs of US\$1 million which are recognised in expenses excluding net finance costs in the Consolidated Income Statement.

(4) Cash outflow is presented as 'Acquisition of subsidiaries and joint operations, net of their cash' within the Consolidated Cash Flow Statement.

From the date of acquisition, the additional 16.6 per cent interest in Mozal Aluminium contributed an additional US\$39 million of revenue and US\$11 million of profit before tax to the Group. If the transaction had taken place at the beginning of the year, the additional 16.6 per cent interest would have contributed, for the full year, an additional US\$295 million of revenue and US\$82 million of profit before tax to the Group. The gain on bargain purchase of US\$9 million is mainly attributable to fluctuations in short-term commodity prices.

31. Acquisition of equity accounted investments

Acquisition of interest in Sierra Gorda

On 22 February 2022, the Group completed its acquisition of a 45 per cent interest in Sierra Gorda. The Group acquired, through a newly incorporated wholly owned subsidiary, South32 Chile Copper Holdings Pty Ltd, 100 per cent of the share capital in five holding companies which indirectly hold a 45 per cent interest in, and provide funding for, the Sierra Gorda operation. The transaction was completed for an upfront payment of US\$1,408 million, inclusive of purchase price adjustments, and contingent consideration with a fair value on acquisition date of US\$116 million. Contingent consideration is price linked, with up to US\$500 million payable over four years at threshold copper production rates and prices.

The upfront consideration was funded from a combination of cash on hand and a dedicated acquisition bridge facility. On 14 April 2022, the Group completed the issuance of US\$700 million of senior unsecured notes, with the Group utilising those cash proceeds, together with cash on hand, to fully repay amounts drawn down under the acquisition bridge facility. Refer to note 17 Interest bearing liabilities for the key terms of the issuance.

The joint arrangement is classified as a joint venture as the activities are primarily designed to provide joint venture parties with rights to the net assets of the arrangement. The assets acquired include purchased credit-impaired loan receivables accounted for under AASB 9 Financial Instruments and an equity accounted investment accounted for under AASB 128 Investments in associates and joint ventures.

US\$M	FY22
Purchase consideration	
Direct costs relating to the acquisition ⁽¹⁾	1,421
Contingent consideration payable ⁽²⁾	116
Total consideration	1,537
Assets acquired and liabilities assumed	
Loans to equity accounted investments	1,687
Equity accounted investments	-
Current tax payable	(151)
Other	1
Net assets acquired	1,537
Cash outflow on acquisition	
Direct costs relating to the acquisition ⁽¹⁾	1,421
Net cash acquired	(1)
Net consolidated cash outflow⁽³⁾	1,420

(1) Inclusive of acquisition related transaction costs and other directly attributable costs of US\$13 million.

(2) Contingent consideration recognised represents the present value of expected future cash flows payable. The payment is contingent on the average realised copper price and production levels for the first 4 years post acquisition. If the production thresholds are met, the consideration payable in that year is calculated as 50 per cent of the Group's 45 per cent share in Sierra Gorda's operating revenue, multiplied by the percentage amount by which the average realised copper price exceeds the specified copper price thresholds. The maximum undiscounted value of the contingent consideration payable is US\$500 million and the minimum value is US\$nil.

(3) Cash outflow is presented as 'Acquisition of equity accounted investments' within the Consolidated Cash Flow Statement.

31. Acquisition of equity accounted investments continued

Acquisition of additional interest in MRN

On 29 April 2022, the Group acquired an additional 18.2 per cent shareholding and related rights in MRN from Alcoa Corporation. The transaction was completed for an upfront payment of US\$10 million and contingent consideration with a fair value on acquisition date of US\$16 million.

The additional interest increases the Group's shareholding to 33 per cent, and as a result the Group has significant influence over MRN and the investment is considered an associate which is equity accounted.

The Group's existing 14.8 per cent interest, which was previously classified as an investment in equity instruments designated as FVOCI, was derecognised and the fair value of US\$19 million was transferred to form part of the equity accounted investment.

US\$M	FY22
Purchase consideration	
Direct costs relating to the acquisition	10
Contingent consideration payable ⁽¹⁾	16
Total consideration	26
Assets acquired and liabilities assumed	
Equity accounted investments	45
Derecognition of other financial assets ⁽²⁾	(19)
Net assets acquired	26
Cash outflow on acquisition	
Direct costs relating to the acquisition	10
Net consolidated cash outflow⁽³⁾	10

(1) Contingent consideration recognised represents the present value of a fixed amount with a probability factor applied. The maximum undiscounted value of the contingent consideration is US\$30 million and the minimum value is US\$nil. The amount becomes payable by the Group if agreed expansion milestones are met.

(2) The Group's existing 14.8 per cent interest, which was previously classified as an investment in equity instruments designated as FVOCI, was derecognised.

(3) Cash outflow is presented as 'Acquisition of equity accounted investments' within the Consolidated Cash Flow Statement.

32. Parent entity information

(a) Summary financial information

The individual financial statements for the parent entity, South32 Limited, show the following aggregate amounts:

US\$M	FY22	FY21
Result of parent entity		
Profit/(loss) after tax for the year	3,879	(818)
Total comprehensive income/(loss)	3,879	(818)
Financial position of parent entity at year end		
Current assets	652	30
Total assets	13,006	10,825
Current liabilities	100	1,003
Total liabilities	108	1,014
Net assets	12,898	9,811
Total equity of the parent entity		
Share capital	13,469	13,597
Treasury shares	(28)	(17)
Other reserves	24	28
Profit reserve ⁽¹⁾	4,823	1,604
Accumulated losses	(5,390)	(5,401)
Total equity	12,898	9,811

(1) Current and prior year profits, net of dividends paid, have been appropriated to a profit reserve for future dividend payments.

(b) Parent company guarantees

The parent entity and South32 SA Investments Ltd have jointly and severally, fully and unconditionally guaranteed the payment of the principal and premium, if any, and interest, including certain additional amounts that may be payable in respect of the notes issued by South32 Treasury Ltd, a 100 per cent owned finance subsidiary of the parent entity. The parent entity and South32 SA Investments Ltd have guaranteed the payment of such amounts when they become due and payable, whether on an interest payment date, at the stated maturity of the notes, by declaration or acceleration, call for redemption or otherwise. At 30 June 2022, the guaranteed liabilities in respect of the notes amounted to US\$689 million.

The parent entity has also guaranteed a US commercial paper program and a Group revolving credit facility of US\$1,400 million which backs the US commercial paper program. The Group revolving credit facility remains undrawn as at 30 June 2022. The facility was refinanced in December 2021 as a five year facility maturing in December 2026 with options to extend for up to a further two years by mutual agreement. On refinancing, the size of the facility was reduced by US\$50 million to US\$1,400 million.

The parent entity is party to a Deed of Support with the effect that the Company guarantees debts in respect of South32 Group Operations Pty Ltd.

33. Discontinued operation

A discontinued operation is a component of the Group's business that represents a separate major line of business or geographical area of operations that has been disposed of or is held for sale. Classification as a discontinued operation occurs upon disposal or when the operation meets the criteria to be classified as held for sale, if earlier. When an operation is classified as discontinued, the comparative income statement is restated as if the operation had been discontinued from the start of the comparative period.

On 6 November 2019, the Group announced a binding conditional agreement for the sale of its shareholding in SAEC to a wholly-owned subsidiary of Seriti and two trusts which will acquire and hold equity on behalf of employees and communities. The transaction was subject to a number of material conditions which precluded the classification of SAEC as held for sale until the conditions were satisfied on 15 May 2021. On 1 June 2021, the Group completed the sale of its shareholding in SAEC to Seriti and two trusts for the benefit of employees and communities.

The discontinued operation represents the entire SAEC operating segment which consists of: the Khutala colliery, the Klipspruit colliery, the Wolvekrans Middelburg Complex and other SAEC corporate assets.

(a) Results of the discontinued operation

US\$M	FY21
Revenue	
Group production	735
Third party products and services	126
	861
Other income	58
Expenses excluding net finance costs	(1,049)
Loss on disposal of the discontinued operation	(159)
Share of profit/(loss) of equity accounted investments	(8)
Profit/(loss) from the discontinued operation	(297)
Finance expenses	(52)
Finance income	9
Net finance costs	(43)
Profit/(loss) before tax from the discontinued operation	(340)
Income tax (expense)/benefit	3
Profit/(loss) after tax from the discontinued operation	(337)
Total comprehensive income/(loss) from the discontinued operation attributable to the equity holders of South32 Limited	(337)
Basic EPS (cents)	(7.1)
Diluted EPS (cents)	(7.1)

(b) Cash flows from the discontinued operation

US\$M	FY21
Net cash flows from operating activities	(180)
Net cash flows from investment activities	(149)
Net cash flows from financing activities	(3)
Net decrease in cash and cash equivalents	(332)

(c) Effect of disposal on the financial position of the Group

US\$M	FY21
Cash and cash equivalents	(58)
Trade and other receivables	(235)
Other financial assets	(167)
Inventories	(164)
Property, plant and equipment	(623)
Intangible assets	(14)
Equity accounted investments	(13)
Trade and other payables	122
Interest bearing liabilities	(144)
Provisions	1,125
Deferred income	1
Deferred tax liabilities	23
Decrease in net assets	(147)
Consideration, net of transaction costs, satisfied in cash	(12)
Cash and cash equivalents disposed of	(58)
Net consolidated cash outflow	(70)

34. Subsequent events

Non-core royalty sale

On 19 July 2022, the Group completed the sale of a package of four non-core base metal royalties to Anglo Pacific Group Plc (Anglo Pacific) in exchange for consideration comprising both cash and shares. The Group recognised a gain on the sale of US\$192 million (US\$134 million post tax) in the 2023 financial year. Following completion, the Group holds a 16.7 per cent interest in Anglo Pacific.

Dendrobium Next Domain project

During the year ended 30 June 2021, the NSW IPC refused the application for the DND project at IMC. The decision by the IPC introduced uncertainty over the future of the DND project's value contribution to the IMC CGU recoverable amount assessment. The Group assessed the potential implications of the IPC decision and as a result recognised an impairment of the IMC CGU of US\$728 million during the 2021 financial year.

On 23 August 2022, the Group announced that it will not proceed with the investment in the DND project following its consideration of recently completed study work and extensive analysis of alternatives considered for the complex. With this decision, the Group will focus on continuing to optimise Dendrobium and the broader IMC complex to extend the mine life within approved domains. In light of the impairment that was recognised during the 2021 financial year, the decision not to proceed with the investment in the DND project has not resulted in an additional impairment charge and the carrying value for the IMC complex remains appropriate as at 30 June 2022.

Capital management

On 25 August 2022, the Directors resolved to pay a fully-franked final dividend of US 14.0 cents per share (US\$648 million) and a fully-franked special dividend of US 3.0 cents per share (US\$139 million) in respect of the 2022 financial year. The dividends will be paid on 13 October 2022. The dividends have not been provided for in the consolidated financial statements and will be recognised in the 2023 financial year.

On 25 August 2022, the Group also announced an increase to the existing capital management program, announced in March 2017, of US\$156 million to a total of US\$2.3 billion. This leaves US\$250 million expected to be returned by 1 September 2023.

No other matters or circumstances have arisen since the end of the financial year that have significantly affected, or may significantly affect, the operations, results of operations or state of affairs of the Group in subsequent accounting periods.

Directors' declaration

In accordance with a resolution of the Directors of the Company, we state that:

1. In the opinion of the Directors:

(a) The consolidated financial statements and notes that are set out on pages 104 to 165 of the Annual Report are in accordance with the Corporations Act, including:

(i) Giving a true and fair view of the Group's financial position as at 30 June 2022 and of its performance for the year ended on that date; and

(ii) Complying with Australian Accounting Standards and Corporations Regulations 2001.

(b) There are reasonable grounds to believe that the Company will be able to pay its debts as and when they become due and payable.

2. The Directors have been given the declarations required by Section 295A of the Corporations Act from the Chief Executive Officer and Chief Financial Officer for the financial year ended 30 June 2022.

3. The Directors draw attention to note 2 to the financial statements on page 109, which includes a statement of compliance with International Financial Reporting Standards.

Signed in accordance with a resolution of the Board of Directors.



Karen Wood
Chair



Graham Kerr
Chief Executive Officer and Managing Director

Dated 8 September 2022



**Lead Auditor's Independence Declaration
under Section 307C of the Corporations Act 2001**

To the Directors of South32 Limited

I declare that, to the best of my knowledge and belief, in relation to the audit of South32 Limited for the financial year ended 30 June 2022 there have been:

- i. no contraventions of the auditor independence requirements as set out in the *Corporations Act 2001* in relation to the audit; and
- ii. no contraventions of any applicable code of professional conduct in relation to the audit.

KPMG

Graham Hogg
Partner

Perth
8 September 2022

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Independent Auditor's Report

To the shareholders of South32 Limited

Report on the audit of the Financial Report

Opinion

We have audited the **Financial Report** of South32 Limited (the Company).

In our opinion, the accompanying Financial Report of the Company is in accordance with the *Corporations Act 2001*, including:

- giving a true and fair view of the **Group's** financial position as at 30 June 2022 and of its financial performance for the year ended on that date; and
- complying with *Australian Accounting Standards* and the *Corporations Regulations 2001*.

The **Financial Report** comprises:

- Consolidated balance sheet as at 30 June 2022;
- Consolidated income statement, Consolidated statement of comprehensive income, Consolidated statement of changes in equity and Consolidated cash flow statement for the year then ended;
- Notes including a summary of significant accounting policies; and
- Directors' declaration.

The **Group** consists of the Company and the entities it controlled at the year-end or from time to time during the financial year.

Basis for opinion

We conducted our audit in accordance with *Australian Auditing Standards*. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Our responsibilities under those standards are further described in the *Auditor's responsibilities for the audit of the Financial Report* section of our report.

We are independent of the Group in accordance with the *Corporations Act 2001* and the ethical requirements of the *Accounting Professional and Ethical Standards Board's APES 110 Code of Ethics for Professional Accountants (including Independence Standards)* (the Code) that are relevant to our audit of the Financial Report in Australia. We have fulfilled our other ethical responsibilities in accordance with the Code.

Key Audit Matters

The **Key Audit Matters** we identified are:

- Asset valuation;
- Closure and rehabilitation provision; and
- Acquisition of Sierra Gorda.

Key Audit Matters are those matters that, in our professional judgement, were of most significance in our audit of the Financial Report of the current period.

These matters were addressed in the context of our audit of the Financial Report as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Independent Auditor's Report

Asset valuation

Refer to Note 13 *Impairment of non-financial assets* and Note 26 *Equity Accounted Investments* to the Financial Report

The key audit matter

The assessment of the existence of impairment or reversal indicators and impairment testing of CGUs, where required, was a key audit matter given the size of property, plant and equipment, intangible assets and equity accounted investments, and the sensitivity of valuations to certain assumptions.

Historically the Group has impaired the carrying value of several CGUs to recoverable amount. Combined with the volatility in both commodity and foreign exchange markets, there is an increased sensitivity of the carrying value of the Group's CGUs to potential impairment and reversal.

The Group has:

- Recorded an impairment charge of \$183m in the Eagle Downs Metallurgical Coal CGU, resulting from the potential divestment of the operation; and
- Recorded an impairment reversal of \$42m in the Brazil Aluminium CGU, resulting from the decision to participate in a restart of the Alumar aluminium smelter.

These further increased our audit effort in this key audit area.

The Group uses sophisticated models to perform their assessment of impairment or reversal indicators and impairment testing, where required. Impairment testing was performed on the following CGU's:

- Hillside Aluminium due to the presence of goodwill;
- Eagle Downs Metallurgical Coal for which the presence of an impairment indicator was identified; and
- Brazil Aluminium for which the presence of an impairment reversal indicator was identified.

The models are developed in-house, and use life of operation and project plans, approved budgets, and a range of external sources as inputs to the assumptions. Complex modelling using forward-looking assumptions tends to be prone to greater risk for potential bias, error and inconsistent application. These conditions necessitate additional scrutiny by us, in particular to address the objectivity of inputs, and their consistent application.

We focused on the significant forward-looking assumptions the Group applied in their models, including:

- Forecast commodity prices and foreign exchange rates – the current economic climate has resulted in significant volatility in forecast commodity prices across the Group. The Group's models are sensitive to small changes in these price assumptions, as well as changes to foreign exchange rates, particularly the South African Rand, Brazilian Real and the Australian Dollar, increasing forecasting risk;
- Forecast operating cash flows, production volumes, capital expenditure and reserve and resource estimates – these are determined by the Group based on historical performance adjusted for expected changes or plans for development, including consideration of regulatory approvals. This drives additional audit effort specific to the feasibility of the forecasts and consistency with the Group's strategy;
- Discount rates - these are complicated in nature and vary according to the conditions and environment the CGUs are subject to from time to time; and
- Carbon price – the Group incorporates carbon price assumptions in its modelling based on enacted local schemes and assumptions around global longer-term pricing and timing.

The Group uses fair value less cost of disposal models to assess recoverable amount when testing for impairment.

We involved valuation specialists to supplement our senior audit team members in assessing this key audit matter.

How the matter was addressed in our audit

Our procedures included:

We assessed the Group's view of the indicators leading to impairment and reversal testing for the Eagle Downs Metallurgical Coal and Brazil Aluminium CGU's. We recalculated the impairment charge and impairment reversal and compared to the amounts recognised.

We assessed the integrity and consistency of the models used for impairment testing and assessment of impairment or reversal indicators on a sample basis, including the accuracy of the underlying formulas and consistency of modelling to the prior year.

We assessed the scope, objectivity and competence of the Group's experts responsible for preparation of the resource and reserve estimates and compared these estimates to those incorporated in the life of operation and project plans where applicable.

We compared the forecast operating cash flows, production volumes, capital expenditure and reserve and resource estimates contained in the models to the life of operation and project plans incorporating the approved budgets. We assessed the accuracy of the Group's previous forecasts to assist with this assessment.

Using our knowledge of the Group and our industry experience, and considering the Group's strategy and past performance, we assessed the feasibility of the forecast operating cash flows, capital expenditure and production volumes.

Working with our valuation specialists, and considering the risk factors specific to the Group, we compared the discount rates to publicly available market data for comparable entities. We also compared foreign exchange rates to published views of market commentators.

We compared forecast commodity prices to published views of market commentators on future trends and long-term supply agreements.

We compared carbon assumptions to locally enacted country specific schemes and longer term published industry views.

We considered the sensitivity of the models by varying key assumptions, such as forecast commodity prices, foreign exchange rates, carbon pricing, risking applied to future development and discount rates, within a reasonably possible range, to identify those CGUs at higher risk of impairment or reversal and to focus our further procedures.

For Eagle Downs Metallurgical Coal we considered other information included in the fair value assessment including other market participant views on the assets value.

We assessed the disclosures in the Financial Report using our understanding obtained from our testing and against the requirements of the accounting standards.

Independent Auditor's Report

Closure and rehabilitation provision

Refer to Note 15 *Provisions* to the Financial Report.

The key audit matter

Closure and rehabilitation provisioning was a key audit matter due to the size of the provision and the judgement we used to audit the provision estimates across the multiple sites the Group operates.

Closure and rehabilitation activities are governed by Group policies based on legal and regulatory requirements, which differ across multiple jurisdictions.

We focused on the following assumptions the Group applied in determining the provisions in accordance with the closure and rehabilitation plans:

- Nature and extent of activities required across the multiple sites, including the magnitude of possible contamination and disturbance, which are inherently challenging to assess;
- Timing of when closure and rehabilitation will take place, which increases estimation uncertainty given the unique nature of each site and long timeframes involved;
- Forecast cost estimates incorporating historical experience, which may not be a reliable predictor of such costs, and risk adjustments. The Group engages external experts periodically to assist in their determination of these estimates; and
- Economic assumptions, including country specific discount rates, which are complicated in nature.

How the matter was addressed in our audit

Our procedures included:

We assessed the scope, objectivity and competence of the Group's internal and external experts to provide rehabilitation cost estimates.

We evaluated key assumptions used in the closure and rehabilitation provision, relevant to the jurisdictions of the sites the Group operates, by:

- Comparing the nature and extent of activities costed to the Group's closure and rehabilitation plans and relevant regulatory requirements;
- Comparing the timing of closure and rehabilitation activities to the Group's resources and reserve estimates and the expected production profile contained in the life of operation plans;
- Comparing a sample of cost estimates of the activities, incorporating risk adjustments, to historical experience and underlying documentation, the Group's external expert estimates, and against our knowledge of the Group and its industry;
- Working with our sustainability closure specialists to assess the reasonableness and completeness of closure activities on a sample basis; and
- Working with our valuation specialists, comparing country specific discount rate assumptions to market observable data, including risk free rates.

Acquisition of Sierra Gorda

Refer to Note 31 *Acquisition of Equity Accounted Investments* and Note 19 *Financial Risk Management* to the Financial Report

The key audit matter

On 22 February 2022, the Group acquired 100% of the share capital in five holding companies which indirectly hold a 45% interest in, and provide funding for Sierra Gorda SCM. Consideration of \$1,537m resulted in the recognition of Loans to equity accounted investments and Current tax payable.

This transaction is considered to be a key audit matter due to the:

- Size of the acquisition having a significant impact on the Group's financial statements;
- Group's judgement and complexity relating to the determination of asset acquisition accounting, and allocations made to acquired assets and liabilities, in particular Loans to equity accounted investments;
- Group's forecast cashflow model used to determine the Loan effective interest rate on acquisition is complex and sensitive to changes in key assumptions. This drives additional audit effort specifically on the feasibility of these key assumptions and consistency of application to the Group's strategy;
- Estimate of the fair value of the contingent consideration. We focused on the forecast cash flow assumptions, which are forward-looking, inherently uncertain and tend to be prone to greater risk for potential bias; and
- Re-estimation of forecast cashflows at 30 June 2022 due to the update of key assumptions and forecasts. This resulted in a loss on purchased credit-impaired receivable of \$26m and a gain of \$48m on contingent consideration payable.

The key assumptions we focused on in the calculation of forecast cashflows included production guidance, forecast commodity prices, forecast operating and capital expenditure, discount rates and reserve and resource estimates.

We involved our valuation specialists to supplement our senior audit team members in assessing this key audit matter.

How the matter was addressed in our audit

Our procedures included:

- We evaluated the asset acquisition accounting by the Group against the requirements of the accounting standards;
- We read the underlying transaction agreements to understand the terms of the acquisition and nature of the assets and liabilities acquired;
- We assessed the accuracy of the calculation and measurement of consideration paid to acquire Sierra Gorda based on the underlying transaction agreements and the Group's bank statements;
- We challenged the forecast cash flows assumptions for the entity acquired, which forms the basis of the calculation of effective interest rate and contingent consideration fair value, including:
 - Working with our valuation specialists, we evaluated the valuation methodology used by the Group;
 - We assessed the feasibility of assumptions and consistency of application to industry trends and expectations. We used our knowledge of the Group and the entity acquired, past performance, and our industry experience;
 - We compared forecast commodity prices and foreign exchange rates to published views of market commentators on future trends; and
 - We assessed changes in forecast cashflows between acquisition date and 30 June 2022. We focused on obtaining supporting evidence to support such changes representing new or updated information subsequent to acquisition.

We assessed the adequacy of disclosures in the financial report using our understanding obtained from our testing and against the requirements of the accounting standards.



Independent Auditor's Report

Other Information

Other Information is financial and non-financial information in South32 Limited's annual reporting which is provided in addition to the Financial Report and the Auditor's Report. The Directors are responsible for the Other Information.

Our opinion on the Financial Report does not cover the Other Information and, accordingly, we do not express an audit opinion or any form of assurance conclusion thereon, with the exception of the Remuneration report and our related assurance opinion.

In connection with our audit of the Financial Report, our responsibility is to read the Other Information. In doing so, we consider whether the Other Information is materially inconsistent with the Financial Report or our knowledge obtained in the audit, or otherwise appears to be materially misstated.

We are required to report if we conclude that there is a material misstatement of this Other Information, and based on the work we have performed on the Other Information that we obtained prior to the date of this Auditor's Report we have nothing to report.

Responsibilities of the Directors for the Financial Report

The Directors are responsible for:

- Preparing the Financial Report that gives a true and fair view in accordance with *Australian Accounting Standards* and the *Corporations Act 2001*;
- Implementing necessary internal control to enable the preparation of a Financial Report that gives a true and fair view and is free from material misstatement, whether due to fraud or error; and
- Assessing the Group and Company's ability to continue as a going concern and whether the use of the going concern basis of accounting is appropriate. This includes disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless they either intend to liquidate the Group and Company or to cease operations, or have no realistic alternative but to do so.

Auditor's responsibilities for the audit of the Financial Report

Our objective is:

- To obtain reasonable assurance about whether the Financial Report as a whole is free from material misstatement, whether due to fraud or error; and
- To issue an Auditor's Report that includes our opinion.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with *Australian Auditing Standards* will always detect a material misstatement when it exists.

Misstatements can arise from fraud or error. They are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the Financial Report.

A further description of our responsibilities for the audit of the Financial Report is located at the *Auditing and Assurance Standards Board* website at: https://www.auasb.gov.au/admin/file/content102/c3/ar1_2020.pdf. This description forms part of our Auditor's Report.

Report on the Remuneration Report

Opinion

In our opinion, the Remuneration report of South32 Limited for the year ended 30 June 2022, complies with *Section 300A* of the *Corporations Act 2001*.

Directors' responsibilities

The Directors of the Company are responsible for the preparation and presentation of the Remuneration report in accordance with *Section 300A* of the *Corporations Act 2001*.

Our responsibilities

We have audited the Remuneration report included in pages 79 to 102 of the Directors' report for the year ended 30 June 2022.

Our responsibility is to express an opinion on the Remuneration report, based on our audit conducted in accordance with *Australian Auditing Standards*.

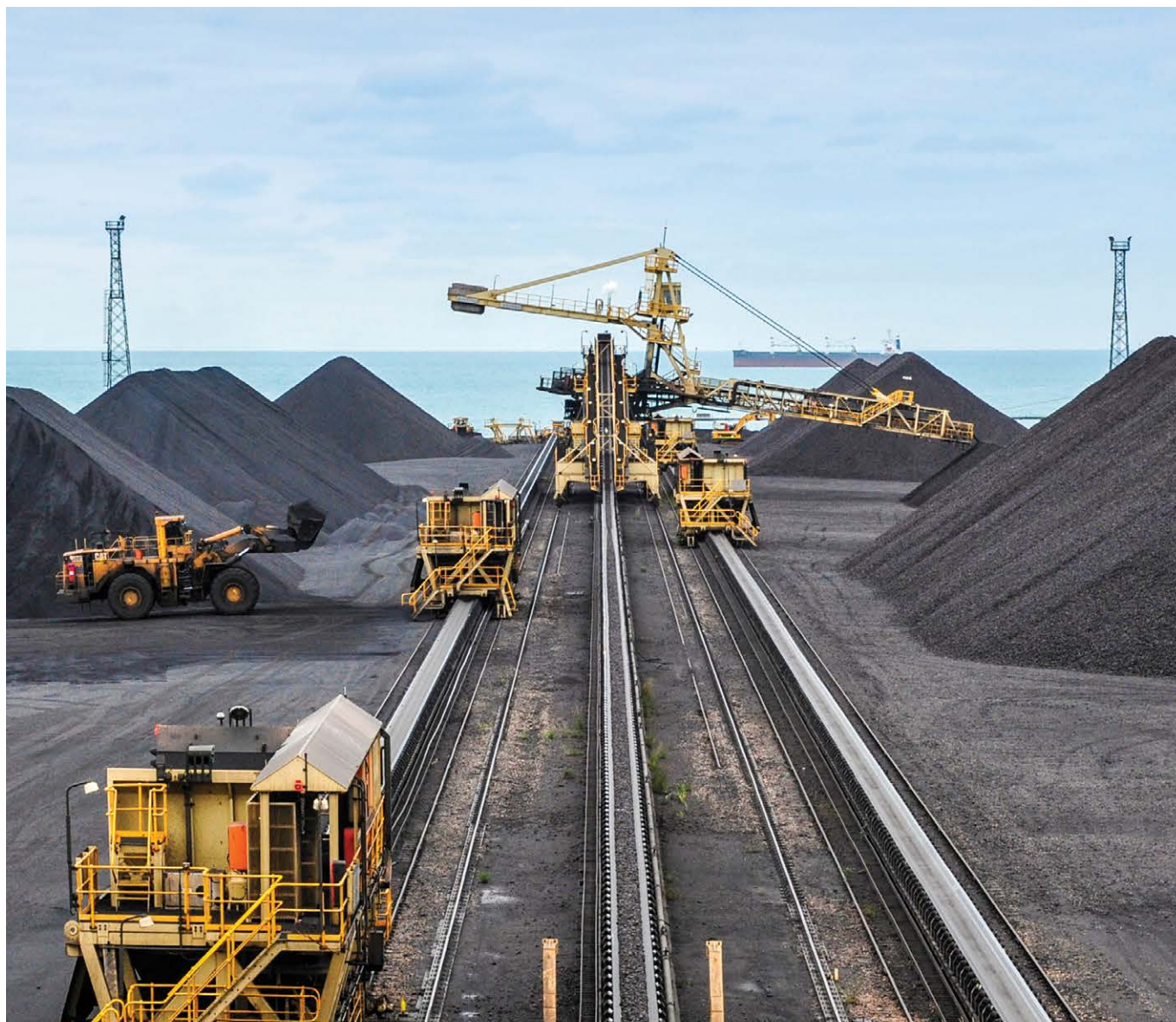
KPMG

Graham Hogg

Partner

Perth

8 September 2022



RESOURCES AND RESERVES

Information	173
Competent Persons	174
Accompanying tables	175



Resources and Reserves

As required by Chapter 5 of the Australian Securities Exchange (ASX) Listing Rules, we report Mineral Resources and Ore Reserves (including Coal Resources and Coal Reserves) in accordance with the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code).

In this report, information relating to Mineral Resources and Ore Reserves is based on, and fairly represents, information and supporting documentation prepared by our Competent Persons.

A Competent Person is defined in the JORC Code. They must have a minimum five years of relevant experience in the style of mineralisation or type of deposit under consideration and the activity being undertaken.

Each of our Competent Persons has given consent to the inclusion of the information in this report in the form and context in which it appears. You can find more details on each of their professional affiliations, employer and areas of accountability on page 174. Unless we state otherwise, all Competent Persons listed are full-time employees at South32, or at one of our related entities.

We report Mineral Resources and Ore Reserves in 100 per cent terms and represent estimates as at 30 June 2022. Our Mineral Resource estimations include Measured and Indicated Mineral Resources which, after the application of all Modifying Factors, and development of a mine plan, have been classified as Ore Reserves.

We report all quantities as dry metric tonnes, unless stated otherwise.

It is important to note that Mineral Resources and Ore Reserves are estimations, not precise calculations. We have rounded tonnes and grade information to reflect the relative uncertainty of the estimate, which is why minor computational differences may be present in the totals.

Our long-range forecasts are the basis for the commodity prices and exchange rates used to estimate the economic viability of Ore Reserves. Our planning processes consider the impacts of climate change on our Ore Reserves, including assessments of operating costs and the impact of extreme weather events on the expectation of economic extraction.

Our Ore Reserves are within existing permitted mining tenements. Our mineral leases are of sufficient duration, or convey a legal right to renew the tenure, to enable all Ore Reserves on the leased properties to be mined in accordance with the current production schedules. These Ore Reserves

At a glance - Resources and Reserves (as at 30 June 2022)

Operations and development options	Total Ore/Coal Reserve (Mt)	Reserve Life Years ⁽¹⁾	Total Mineral/Coal Resource (Mt)
Worsley Alumina	227	13	1,090
Brazil Alumina (MRN)	50	4.0	458
Cannington	17	7.0	69
Taylor			138
Clark			55
Arctic			37
Bornite			148
Cerro Matoso	27	7.0	322
Australia Manganese	41	3.9	147
South Africa Manganese ⁽²⁾	102	42	213
Illawarra Metallurgical Coal ⁽²⁾⁽³⁾	104	24	1,200
Eagle Downs			1,140

(1) Scheduled extraction period in years for the Total Ore Reserves in the approved Life of Operation Plan.

(2) Reserve Life for Illawarra Metallurgical Coal and South Africa Manganese is reported as the life of scheduled Coal/Ore Reserves for Bulli and Wessels respectively. The Reserve Life for the remaining operations are stated in the following detailed disclosures.

(3) Coal Reserves in this table are presented as Marketable Coal Reserves. Process recoveries are reported in the following detailed disclosures for each coal operation.

may include areas where additional approvals are required, and it is expected that such approvals will be obtained within the timeframe needed for the current production schedule.

Foreign estimate

In the market announcement "South32 to Acquire a 45 per cent Interest in the Sierra Gorda Copper Mine" dated 14 October 2021, we reported on the estimates of mineral resources and mineral reserves for the Sierra Gorda copper mine. These estimates of mineral resources and mineral reserves are foreign estimates under the ASX Listing Rules and are not reported in accordance with the JORC Code. We completed the acquisition on 22 February 2022 and in accordance with ASX Listing Rule 5.14.1, our technical team is reviewing available information in collaboration with the Sierra Gorda operational team to verify the foreign resource and reserve estimates, with the intention of enabling these estimates to be reported in accordance with the JORC Code.

We are not in possession of any new information or data relating to the foreign estimate that materially impacts on the reliability of the estimates or our ability to verify the foreign estimates as Mineral Resources or Ore Reserves in accordance with the JORC Code. We confirm that the information contained in our 14 October 2021 market announcement in relation to these foreign estimates continues to apply and has not materially changed. Competent Persons have not done sufficient work to classify the foreign estimates as Mineral Resources or Ore Reserves in accordance with JORC Code and it is uncertain that following evaluation and further exploration, the foreign estimates will be able to be reported as Mineral Resources or Ore Reserves in accordance with the JORC Code.

Our governance arrangements and internal controls

We have internal standards and governance arrangements that cover regulatory requirements for public reporting. To ensure correct and accurate public reporting, our governance processes are managed by the Resource and Reserve Governance function in coordination with the Company Secretariat function.

Our comprehensive review and audit program is aimed at assuring our Mineral Resource and Ore Reserve estimates. This includes:

- Annual review of Mineral Resources and Ore Reserves declarations and reports;
- Annual review of reconciliation performance metrics for operating mines;
- Periodic internal mine planning and Ore Reserve audits; and
- Independent audits of Exploration Results, Mineral Resources or Ore Reserves that are new or have materially changed.

In FY22, we undertook five independent assurance audits of Exploration Results, Mineral Resource or Ore Reserve estimates and four internal mine planning and Ore Reserve assurance audits. The frequency and scope of the audits are generally a function of the perceived risks and uncertainties associated with a particular Mineral Resource and Ore Reserve. The increase in frequency of audits in FY22 is associated with activities we deferred in FY21 due to COVID-19, new opportunities we explored and projects we reviewed when advancing into the next study phase.

The accompanying tables, on pages 175 to 179, outline our Mineral/Coal Resources and Ore/Coal Reserves holdings.

Our exploration, research and development

Our operations carry out exploration, research and development necessary to support our activities. Our brownfield exploration activities target the delineation and categorisation of mineral deposits connected or adjacent to our existing operations. Our greenfield exploration activities focus on the discovery and delineation of opportunities outside of our operational footprint, with a bias to base metals.

During FY22 we continued to expand our global exploration footprint. We funded greenfield exploration in Australia, Peru, Colombia, Argentina, Ireland, Canada and the United States of America. Our exploration expenditure for FY22 was US\$74 million (FY21: US\$57 million) of which US\$18 million related to brownfield and US\$56 million related to greenfield (FY21: US\$19 million and US\$38 million respectively).

Competent Persons

Mineral Resources

Worsley Alumina: P Soodi Shoar, MAusIMM

Brazil Alumina:

Mineração Rio Do Norte (MRN): M A H Monteiro, MAusIMM, employed by Mineração Rio do Norte S.A.

Cannington: P Soodi Shoar, MAusIMM

Hermosa:

Taylor: B Parsons, MAusIMM (CP), employed by SRK Consulting (US) Inc

Clark: B Parsons, MAusIMM (CP), employed by SRK Consulting (US) Inc

Ambler Metals Joint Venture:

Arctic: D F Machuca Mory, PEng., employed by SRK Consulting (Canada) Inc; T Fouet, MAusIMM

Bornite: S Khosrowshahi, MAusIMM (CP) employed by WSP Global Inc.; T Fouet, MAusIMM

Cerro Matoso: I Espitia, MAusIMM (CP)

Australia Manganese:

Groote Eylandt Mining Company (GEMCO): J Harvey, MAusIMM

South Africa Manganese:

Mamatwan and Wessels: L Lautze, Pr. Sci. Nat., SACNASP

Ore Reserves

Worsley Alumina: G Burnham, MAusIMM

Brazil Alumina:

Mineração Rio Do Norte (MRN): J P M Franco, MAusIMM, independent consultant

Cannington: R Muller, MAusIMM

Cerro Matoso: N Monterroza, MAusIMM

Australia Manganese:

Groote Eylandt Mining Company (GEMCO): U Sandilands, MAusIMM

South Africa Manganese:

Mamatwan and Wessels: A R Maier, Pr. Eng.

Coal Resources

Illawarra Metallurgical Coal:

Bulli and Wongawilli: M Krejci, MAusIMM

Eagle Downs: M Blaik, MAusIMM, employed by JB Mining Services Pty Ltd

Coal Reserves

Illawarra Metallurgical Coal:

Bulli and Wongawilli: M Rose, MAusIMM

Alumina Mineral Resources

As at 30 June 2022

	As at 30 June 2022						As at 30 June 2021					
	Measured Mineral Resources			Indicated Mineral Resources			Inferred Mineral Resources			Total Mineral Resources		
Deposit ⁽¹⁾	Material Type	Mt	% A ₂ O ₃	% R ₂ SiO ₂	Mt	% A ₂ O ₃	% R ₂ SiO ₂	Mt	% A ₂ O ₃	% R ₂ SiO ₂	South32 Interest	
Worsley ⁽²⁾	Laterite	328	28.4	1.5	375	29.2	2.0	391	28.6	2.1	1,090	1.9
MRN ⁽³⁾	MRN Washed	288	49.7	4.4	38	48.7	5.1	132	49.9	3.6	458	4.2
											1,140	1.9
											471	4.2

Ore Reserves

As at 30 June 2022

	As at 30 June 2022						As at 30 June 2021					
	Proved Ore Reserves			Probable Ore Reserves			Total Ore Reserves			South32 Interest		
Deposit ⁽¹⁾⁽⁸⁾	Ore Type	Mt	% A ₂ O ₃	% R ₂ SiO ₂	Mt	% A ₂ O ₃	% R ₂ SiO ₂	Mt	% A ₂ O ₃	% R ₂ SiO ₂	Total Ore Reserves	
Worsley ⁽⁴⁾⁽⁶⁾	Laterite	191	28.2	1.6	36	27.7	1.6	227	28.1	1.6	242	1.7
MRN ⁽³⁾⁽⁵⁾⁽⁷⁾	MRN Washed	42	48.9	4.6	7.9	48.5	5.1	50	48.8	4.7	48.1	5.8
											17	1.3

(1) Cut-off grade

Mineral Resources

Variable ranging from 22-25% A₂O₃, ≤3% R₂SiO₂ for mineralised material and
 >28% A₂O₃, ≤3-5% R₂SiO₂ for blend material and ≥1m thickness.

MRN 24-6% A₂O₃, ≤7% R₂SiO₂, ≥1m thickness and ≥30% recovery on weight per cent basis

(2) Change to Mineral Resource due to updated methodology.

(3) MRN Washed tonnes and grades represent the expected product based on forecast beneficiation yield.

(4) Change to Ore Reserve classification due to change in Mineral Resource classification.

(5) Change to Ore Reserves due to grant of environmental approval.

(6) Ore delivered to Worsley refinery.

(7) Ore delivered to Alumar refinery.

(8) Metallurgical recovery:

Worsley 91.9%

Alumar 92%

Ore Reserves
 Variable ranging from 22.5-29% A₂O₃, <3-5% R₂SiO₂ and variable thickness ≥1-2m.

MRN 24-6% A₂O₃, ≤7% R₂SiO₂, ≥1m thickness and ≥30% recovery on weight per cent basis.

Resources and Reserves continued

Base Metals
Mineral Resources

As at 30 June 2022														As at 30 June 2021								
Deposit ⁽¹⁾	Material Type	Measured Mineral Resources				Indicated Mineral Resources				Inferred Mineral Resources				Total Mineral Resources				South32 Interest	Total Mineral Resources			
		Mt	g/t Ag	% Pb	% Zn	Mt	g/t Ag	% Pb	% Zn	Mt	g/t Ag	% Pb	% Zn	Mt	g/t Ag	% Pb	% Zn					
Cannington																						
Cannington	UG Sulphide	36	179	5.06	3.22	3.2	104	3.65	2.39	0.3	80	3.51	2.44	40	172	4.93	3.14	43	174	5.02	3.16	
	OC Sulphide	25	107	3.29	2.51	3.1	72	2.64	1.79	1.2	47	2.43	1.20	29	101	3.18	2.38	29	102	3.20	2.38	
																		100				
Hermosa																						
Taylor	UG Sulphide	29	4.10	4.05	57	82	3.65	4.45	88	23	3.62	3.82	93	133	3.74	4.26	82	133	3.74	4.26	82	
	UG Transition					3.7	6.11	4.21	60	1.4	5.55	3.91	64	5.1	5.95	4.13	61	5.1	5.95	4.13	61	
Clark	UG Oxide					33	2.49		9.39	57	22	2.04	8.64	110	55	2.31	9.08	78	55	2.31	9.08	78
																		100				
Ambler																						
Arctic	OC Sulphide					33	3.14	4.43	0.80	49	0.63	4.7	2.55	3.34	0.57	37	3.06	4.30	0.77	47	0.60	
	OC Sulphide					40	1.06			38	1.03			78	1.04			78	1.04			
Bornite	UG Sulphide									70	2.29			70	2.29			70	2.29			
																		50				
Total Mineral Resources																						
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Nickel
Cerro Matoso
Mineral Resources

As at 30 June 2022

Deposit ⁽¹⁾	Material Type	Measured Mineral Resources			Indicated Mineral Resources			Inferred Mineral Resources			Total Mineral Resources			South32 Interest			As at 30 June 2021		
		Mt	% Ni		Mt	% Ni		Mt	% Ni		Mt	% Ni		%			Mt	% Ni	
Cerro Matoso	Laterite	116	1.0		137	0.8		17	0.8		270	0.9		99.9			275	0.9	
	Stockpile	14	1.0		38	0.8					52	0.9					53	0.9	

Ore Reserves

As at 30 June 2022

Deposit ⁽¹⁾⁽²⁾⁽³⁾	Ore Type	Proved Ore Reserves			Probable Ore Reserves			Total Ore Reserves			Reserve Life			South32 Interest			As at 30 June 2021		
		Mt	% Ni		Mt	% Ni		Mt	% Ni		Years			%			Mt	% Ni	Years
Cerro Matoso	Laterite	13	1.3		1.8	1.4		15	1.3		7.0			99.9			16	1.3	8.0
	Stockpile	7.3	1.1		5.0	1.1		12	1.1								15	1.1	

(1) Cut-off grade

Mineral Resources
Laterite 0.6% Ni
SP 0.6% Ni
Ore Reserves
0.6% Ni
0.6% Ni

(2) Ore delivered to process plant.

(3) Global recovery: 81%

Resources and Reserves continued

Manganese Mineral Resources

As at 30 June 2022

As at 30 June 2022										As at 30 June 2021									
Deposit ⁽¹⁾	Material Type	Measured Mineral Resources			Indicated Mineral Resources			Inferred Mineral Resources			Total Mineral Resources			South32 Interest			Total Mineral Resources		
		Mt	% Mn	% Yield	Mt	% Mn	% Yield	Mt	% Mn	% Yield	Mt	% Mn	% Yield	%	Mt	% Mn	% Yield		
Australia Manganese																			
GEMCO	ROM ⁽²⁾	74	44.8	48	38	40.9	47	26	44.2	45	138	43.6	47	60	147	43.7	47		
	Sands ⁽³⁾				9.0	19.5					9.0	19.5			10	19.6			
		Mt	% Mn	% Fe	Mt	% Mn	% Fe	Mt	% Mn	% Fe	Mt	% Mn	% Fe		Mt	% Mn	% Fe		
South Africa Manganese ⁽³⁾																			
Wessels	Lower Body	24	43.1	12.8	22	42.8	13.8	3.5	45.1	15.5	50	43.1	13.4	44.4	52	43.1	13.6		
	Upper Body				77	41.1	18.7	14	40.5	20.5	91	41.0	18.9		92	40.8	19.0		
Mamatwan	M, C, N Zones	36	36.8	4.5	14	36.7	4.6				50	36.8	4.5		52	37.0	4.5		
	X Zone	3.1	36.8	4.6	0.6	35.9	4.6				3.7	36.7	4.6		4.6	36.7	4.6		
	Top Cut (balance I&O)	13	29.8	6.1	4.8	29.4	6.1				18	29.7	6.1		23	29.6	6.1		

Ore Reserves

As at 30 June 2022

As at 30 June 2022										As at 30 June 2021											
Ore Type	Proved Ore Reserves			Probable Ore Reserves			Total Ore Reserves			Reserve Life			South32 Interest			Total Ore Reserves			Reserve Life		
	Mt	% Mn	% Yield	Mt	% Mn	% Yield	Mt	% Mn	% Yield	Mt	% Mn	% Yield	Years	%	Mt	% Mn	% Yield	Years			
Deposit ⁽¹⁾⁽⁶⁾	60																				
Australia Manganese																					
GEMCO ⁽⁶⁾	ROM	33	42.9	59	2.3	43.9	54	35	43.0	59	3.9										
	Sands				5.8	40.0	19	5.8	40.0	19		44	43.2	59	4.9	7.1	40.0	20			
		Mt	% Mn	% Fe	Mt	% Mn	% Fe	Mt	% Mn	% Fe		Mt	% Mn	% Fe							
South Africa Manganese⁽⁶⁾																					
Wessels	Lower Body	3.8	43.2	10.8	11	42.9	14.1	15	43.0	13.3	42										
	Upper Body				42	41.2	18.4	42	41.2	18.4		14	43.3	13.3	44	46	40.9	18.7			
Mamatwan	M, C, N Zones	27	36.2	4.5	18	36.1	4.6	45	36.2	4.5	14	49	36.4	4.5	15						
(1) Cut-off grade																					

(1) Cut-off grade

GEMCO ROM Mineral Resources
Sands ≥35% Mn washed product.
Wessels No cut-off grade applied.
Mamatwan ≥27.5% Mn
M, C, N Zones No cut-off grade applied.
X Zone ≥35% Mn
Top Cut (balance I&O) ≥28% Mn

Ore Reserves
≥40% Mn washed product.
No cut-off grade applied.
≥37.5% Mn
No cut-off grade applied.

- (2) Mineral Resources tonnes are stated as in-situ, manganese grades are stated as per washed ore samples and should be read together with their respective mass recovery expressed as yield.
- (3) Mineral Resource tonnes and manganese grades are stated as in-situ.
- (4) Ore Reserves tonnes are stated as delivered to process plant, manganese grades are stated as expected product and should be read together with their respective mass yields.
- (5) Ore delivered to process plant.
- (6) Metallurgical/Plant recoveries for the operations:
GEMCO See yield in Ore Reserves Table.
Wessels 88%
Mamatwan 96%

Metallurgical Coal

Australia Metallurgical Coal

Coal Resources

As at 30 June 2022

As at 30 June 2022										As at 30 June 2021															
Deposit ⁽¹⁾	Mining Method	Measured Coal Resources				Indicated Coal Resources				Inferred Coal Resources				Total Coal Resources				South32 Interest				Total Coal Resources			
		Mt	% Ash	% VM	% S	Mt	% Ash	% VM	% S	Mt	% Ash	% VM	% S	Mt	% Ash	% VM	% S	%	Mt	% Ash	% VM	% S			
Illawarra Metallurgical Coal ⁽²⁾																						100			
Bulli	UG	173	11.4	24.0	0.36	294	12.2	23.6	0.36	307	13.4	23.0	0.35	774	12.5	23.5	0.36		789	12.6	23.4	0.36			
Wongawilli	UG	54	28.7	23.4	0.59	243	29.7	22.2	0.57	130	30.0	22.3	0.57	427	29.7	22.4	0.58		426	29.5	22.4	0.57			
Eagle Downs ⁽³⁾	UG	759	29.4	15.0	0.46	201	28.7	14.7	0.48	183	30.0	14.8	0.47	1,140	29.4	14.9	0.47	50	1,140	29.4	14.9	0.47			

Coal Reserves

As at 30 June 2022

As at 30 June 2022		As at 30 June 2021																												
Deposit ^{(1)&(5)&(6)}	Mining Method	Coal Type	Proved Coal Reserves		Probable Coal Reserves		Total Coal Reserves		Proved Marketable Coal Reserves				Probable Marketable Coal Reserves				Total Marketable Coal Reserves				Reserve Life		South32 Interest		Total Marketable Coal Reserves				Reserve Life	
			Mt	%	Mt	%	Mt	%	Mt	%	Mt	%	Mt	%	Mt	%	Mt	%	Mt	%	Mt	%	Mt	%	Mt	%	Mt	%	Mt	%
100																														
Illawarra Metallurgical Coal																														
Bulli Wongawilli	UG	Met	10	103	113	8.4	8.9	24.3	0.35	87	8.9	24.6	0.35	95	8.9	24.6	0.35	24					97	8.9	24.6	0.35	22			
	UG	Met/Th	3.4	7.6	11													4.2												
	UG	Met				2.1	10.8	23.5	0.59	4.1	10.8	23.1	0.60	6.2	10.8	23.2	0.60						8.1	10.8	23.6	0.59				
	UG	Th				0.7	28.0			1.7	28.0			2.4	28.0								3.0	28.0						

(1) Cut-off grade

Coal Resources

No seam thickness cut-off applied, minimum thickness is economic.

Coal Reserves

No seam thickness cut-off applied, minimum thickness within the mine layout is economic.

(2) Coal Resources tonnes are reported on an in-situ moisture basis. Ash is reported as raw, VM and S are reported as potential product on air-dried basis.

(3) Coal Resources tonnes are reported on an in-situ moisture basis. Ash, VM and S reported as raw.

(4) Total Coal Reserves are at the moisture content when mined (6% Bulli, 7% Wongawilli). Total Marketable Coal Reserves are the tonnes of coal available at moisture content (8.5% Bulli, 15% Wongawilli Th) and air-dried qualities after the beneficiation of the Total Coal Reserves.

(5) Coal delivered to wash plant.

(6) Process recoveries:

Bulli 84%

Wongawilli 77%



INFORMATION

Shareholder information	181
Glossary of terms and abbreviations	184
Corporate directory	189

Shareholder information

Voting rights for shares

South32 Limited ordinary shares carry voting rights of one vote per share.

Shareholders may hold a beneficial entitlement to South32 Limited dematerialised ordinary shares, UK Depositary Interests and American Depositary Shares (ADS) through the Central Securities Depositories of Strate (Strate), CREST and the Depositary Trust Company, respectively. Each share held dematerialised in Strate, or as a Depositary Interest held in CREST, entitles the holder to one vote. Each ADS is represented by five ordinary shares, with ADS voting managed by South32 Limited's ADS Depositary.

Substantial shareholders

As at 5 August 2022, South32 Limited has three substantial shareholders who, together with their associates, hold five per cent or more of the voting rights in South32 Limited, as notified to South32 Limited under the Corporations Act.

Name	Date notice received	Number of shares in notice	Percentage of capital in notice
BlackRock Group	8 December 2021	318,403,413	6.84
Vanguard Group	23 June 2022	235,364,454	5.077
State Street Corporation	21 July 2022	232,738,393	5.03

Distribution of shareholdings and number of shareholders

The following table shows the distribution of South32 Limited shareholders by size of shareholding and number of shareholders and shares as at 5 August 2022.

Size of holding	Number of shareholders	Number of shares	Percentage of capital
1 – 1,000	121,991	58,805,163	1.27
1,001 – 5,000	84,540	203,797,592	4.40
5,001 – 10,000	22,225	162,733,053	3.52
10,001 – 100,000	19,356	438,832,803	9.48
100,001 and over	620	3,764,262,973	81.33
Total	248,732	4,628,431,584	100.00

Distribution of rights holdings and number of rights holders

The following table shows the distribution of rights holders in South32 Limited by size of rights holding and number of rights holders and rights as at 5 August 2022.

Size of holding	Number of rights holders	Number of rights	Percentage of rights on issue
0 – 1,000	434	230,020	0.396
1,001 – 5,000	5,866	9,085,428	15.631
5,001 – 10,000	13	86,684	0.149
10,001 – 100,000	122	5,660,500	9.739
100,001 and over	81	43,061,921	74.086
Total	6,516	58,124,553	100.00

Shareholder information continued

Twenty largest shareholders in South32 Limited

The following table sets out the 20 largest shareholders of ordinary shares listed on the South32 Limited share register and the details of their shareholding as at 5 August 2022.

Name	Number of fully paid shares	Percentage of capital
1 HSBC Custody Nominees (Australia) Limited	1,433,932,720	30.98
2 J P Morgan Nominees Australia Pty Limited	812,106,185	17.55
3 Citicorp Nominees Pty Ltd	465,695,960	10.06
4 Computershare Clearing Pty Ltd <Ccnl Di A/C>	174,514,959	3.77
5 South Africa Control A/C/C	155,716,297	3.36
6 BNP Paribas Noms Pty Ltd <DRP>	129,839,765	2.81
7 National Nominees Limited	127,765,731	2.76
8 Citicorp Nominees Pty Limited <Citibank NY ADR Dep A/C>	83,807,905	1.81
9 BNP Paribas Nominees Pty Ltd <Agency Lending DRP A/C>	55,761,369	1.20
10 Citicorp Nominees Pty Limited <Colonial First State Inv A/C>	47,417,645	1.02
11 HSBC Custody Nominees (Australia) Limited <NT Comnwlth Super Corp A/C>	25,602,228	0.55
12 BNP Paribas Nominees Pty Ltd ACF Clearstream	10,340,762	0.22
13 CPU Share Plans Pty Ltd <S32 ASP Unallocated A/C>	9,863,255	0.21
14 CPU Share Plans Pty Ltd <S32 SPA Control A/C>	8,893,822	0.19
15 HSBC Custody Nominees (Australia) Limited - A/C 2	8,711,119	0.19
16 Netwealth Investments Limited <Wrap Services A/C>	7,455,682	0.16
17 BNP Paribas Noms Pty Ltd <Global Markets DRP>	6,681,988	0.14
18 BNP Paribas Nominees Pty Ltd Hub24 Custodial Serv Ltd <DRP A/C>	4,650,985	0.10
19 HSBC Custody Nominees (Australia) Limited <GSCO Customers A/C>	4,080,486	0.09
20 Mr Graham Kerr	3,804,207	0.08
Total	3,576,643,070	77.28

Restricted and escrowed securities

As at 5 August 2022, South32 Limited does not have any restricted securities or securities subject to voluntary escrow on issue.

Shareholders with less than a marketable parcel

As at 5 August 2022, there were 10,195 shareholders on the Australian South32 Limited register holding less than a marketable parcel (A\$500) based on the closing market price of A\$3.83.

On-market purchases of South32 Limited securities for employee incentive plans

The Group purchases South32 Limited ordinary shares on-market through the Employee Share Ownership Plan (ESOP) Trusts for the purposes of the South32 Equity Incentive Plans. During FY22, 5,765,000 shares were purchased on-market for the Australian ESOP Trust. The average price at which the shares were purchased was A\$4.75. No shares were purchased for the South African ESOP Trust during FY22.

In addition, 39,125 shares were purchased on-market and immediately distributed to Canadian based employees on vesting of rights. The average price at which the shares were purchased was A\$2.86.

Dividend policy

Our dividend policy is determined by the Board at its discretion. Our priorities for cash flow are to maintain safe and reliable operations and an investment grade credit rating through the cycle.

Our current dividend policy is that South32 Limited intends to distribute a minimum 40 per cent of underlying earnings as dividends to its shareholders following each six-month reporting period. South32 Limited intends to distribute dividends with the maximum practicable franking credits for the purposes of the Australian dividend imputation system.

Dividend determination and payment

Our dividends are determined in US dollars.

Dividends for shareholders of South32 Limited on the Australian register are paid by direct credit into their nominated bank account in Australian dollars, UK pounds sterling, New Zealand dollars or US dollars, provided direct credit details and currency election information are submitted no later than close of business on the dividend record date as stated in the relevant ASX announcement.

Dividends for shareholders of South32 Limited on the South African branch register and UK Depositary Interest holders are paid by direct credit in South African rand and UK pounds sterling respectively.

For further information about dividends visit www.south32.net/investors-media/investor-centre/dividends.

Capital management program

In February 2022, we expanded our capital management program by US\$110 million to US\$2.1 billion, comprising a US\$1.5 billion on-market share buy-back and special dividends of US\$154 million (paid in 2018), US\$85 million (paid in 2019), US\$53 million (paid in 2020) and US\$93 million (paid in 2021).

As at 30 June 2022, we had returned a total value of US\$1.9 billion to our shareholders under the capital management program. Subsequent to 30 June 2022, the Board has expanded the capital management program by US\$156 million to US\$2.3 billion, approved a US\$139 million special dividend to be paid in October 2022 and extended the execution window for the remaining program by 12 months to 1 September 2023.

The on-market share buy-back was initially announced on 27 March 2017 and purchasing commenced on 19 April 2017. During the year ended 30 June 2022, South32 Limited purchased 46 million shares under the on-market share buy-back, which represented one per cent of share capital at the beginning of the financial year. Total consideration paid for these shares was US\$128 million. The shares have no par value.

Between the commencement of purchasing under the on-market share buy-back on 19 April 2017 and 30 June 2022, South32 Limited has purchased a total of 695 million shares, which represented 13 per cent of share capital at the commencement of the program. The total consideration paid for the shares bought back up to 30 June 2022 was US\$1.5 billion.

All of the shares purchased by South32 Limited under the on-market share buy-back have been cancelled.

Annual General Meeting (AGM)

Our 2022 AGM is scheduled to be held on Thursday 27 October 2022 at 12.00pm (midday) Australian Western Standard Time as a hybrid meeting, providing shareholders with the opportunity to attend physically or participate via online facilities. We will continue to monitor the COVID-19 situation in Perth and if it becomes necessary or appropriate to make alternative or supplementary arrangements, we will provide an update. Further details regarding the AGM will be made available in September 2022, and shareholders are encouraged to monitor securities exchange releases and the Company's website www.south32.net for information and updates.

Presentations delivered at the AGM, together with the results of voting, will be provided to all stock exchanges and will be available at www.south32.net

Stock exchanges

As at 5 August 2022, South32 Limited has a primary listing on the Australian Securities Exchange, a secondary listing on the Johannesburg Stock Exchange, is admitted to the standard segment of the Official List of the UK Listing Authority and its ordinary shares are traded on the London Stock Exchange.

South32 Limited also has a Level 1 American Depositary Receipts program, which trades in the United States over-the-counter market.

Shareholder enquiries

Shareholders can access their current holding details as well as their transaction history, view dividend statements and payments made, download statements and documents, change their address, update their communication preferences and banking details, and check their tax details online via Computershare's Investor Centre at www.computershare.com.

Alternatively, refer to the following contacts:

Share registries

Australia

Computershare Investor Services Pty Limited
Yarra Falls 452 Johnston Street
Abbotsford Victoria 3067
Australia

Telephone (Australia): 1800 019 953
Telephone (International): +61 3 9415 4169
Facsimile: +61 3 9473 2500

South Africa

Computershare Investor Services (Pty) Limited
Rosebank Towers, 15 Biermann Avenue
Rosebank, 2196
South Africa

Telephone: +27 11 373 0033
Facsimile: +27 11 688 5217
Email enquiries:
web.queries@computershare.co.za

Holders of shares dematerialised into Strate should contact their Central Securities Depository Participant or stockbroker.

United Kingdom

Computershare Investor Services PLC
The Pavilions, Bridgwater Road
Bristol BS99 6ZZ
United Kingdom

Telephone: +44 370 873 5884
Facsimile: +44 370 703 6101
Email enquiries:
web.queries@computershare.co.uk

American Depositary Receipts (ADR)

ADR holders should deal directly with Citibank Shareholder Services.

Citibank Shareholder Services
PO Box 43077 Providence,
Rhode Island 02940-3077

Telephone: +1 877 248 4237
(+1-877-CITIADR) (toll-free within US)
+1 781 575 4555 (outside of US)
Facsimile: +1 201 324 3284
Email enquiries:
citibank@shareholders-online.com
Website: www.citi.com/dr

Branches

In accordance with DTR 4.1.11R(5), South32 Limited, through various subsidiaries, has established branches in a number of different jurisdictions in which the business operates.

Registered office

Information regarding the South32 Limited Registered Office is included in the Corporate directory on the inside back cover.

Electronic communications

Shareholders are encouraged to access all South32 communications electronically. Shareholders that wish to receive electronic communications can update their preferences online or by telephoning the relevant Computershare Investor Centre. Refer to the Investor centre section at www.south32.net for further details on how to receive shareholder communications.

Glossary of terms and abbreviations

Mining related terms

Alumina

Aluminium oxide (Al₂O₃). Alumina is produced from bauxite in the Bayer refining process. It's then converted (reduced) in an electrolysis cell to produce aluminium metal.

Ash

Inorganic material remaining after combustion of coal.

ASX Listing Rules (Chapter 5): Additional reporting on mining and oil and gas production and exploration activities

This chapter of the ASX Listing Rules sets out additional reporting and disclosure requirements for mining entities, oil and gas entities, as well as other entities reporting on mining and oil and gas activities.

AusIMM

The Australasian Institute of Mining and Metallurgy.

Bauxite

Principal commercial ore of aluminium.

Beneficiation

The process of physically separating ore from gangue to produce a mineral concentrate prior to subsequent processing.

Brownfield

An exploration or development project located within an existing mineral province, which can share infrastructure and management with an existing operation.

Coal Reserve

The same meaning as Ore Reserve, but specifically concerning coal.

Coal Resource

The same meaning as Mineral Resource, but specifically concerning coal.

Coking coal

Used in the manufacture of coke, which is used in the steelmaking process by virtue of its carbonisation properties. Coking coal is a form of, and may also be referred to as, metallurgical coal.

Competent Person

A minerals industry professional who is a Member or Fellow of The Australasian Institute of Mining and Metallurgy, or of the Australian Institute of Geoscientists, or of a 'Recognised Professional Organisation', as included in a list available on the JORC and ASX websites. These organisations have enforceable disciplinary processes, including the powers to suspend or expel a member.

A Competent Person must have a minimum of five years' relevant experience in the style of mineralisation or type of deposit under consideration and in the activity that the person is undertaking (JORC Code).

Cut-off grade

The lowest grade, or quality, of mineralised material that qualifies as economically mineable and available in a given deposit. It may be defined on the basis of economic evaluation, or on physical or chemical attributes that define an acceptable product specification (JORC Code).

Energy coal

Used as a fuel source in electrical power generation, cement manufacture and various industrial applications. Energy coal may also be referred to as steaming or thermal coal.

Exploration Results

Exploration Results include data and information generated by mineral exploration programs that might be of use to investors but which do not form part of a declaration of Mineral Resources or Ore Reserves (JORC Code).

Flotation

A method of selectively recovering minerals from finely ground ore using a froth created in water by specific reagents. In the flotation process, certain mineral particles are induced to float by becoming attached to bubbles of froth and the unwanted mineral particles sink.

Foreign Estimate

An estimate of quantity and grade of mineralisation that was prepared using a mineral resources classification and reporting standard from another jurisdiction prior to an entity acquiring, or entering into an agreement to acquire, an interest in a mining tenement that contains the deposit, and which the entity has not verified as mineral resources or ore reserves in accordance with JORC Code.

Grade

Any physical or chemical measurement of the characteristics of the material of interest in samples or product (JORC Code).

Greenfield

An exploration or development project that refers to a new venture or operation, without any association or proximity to a current operation.

Indicated Mineral Resource

That part of a Mineral Resource for which quantity, grade (or quality), densities, shape and physical characteristics are estimated with sufficient confidence. This allows the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit (JORC Code).

Inferred Mineral Resource

That part of a Mineral Resource for which quantity and grade (or quality) are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade (or quality) continuity (JORC Code).

JORC

Joint Ore Reserves Committee comprising representatives of The Australasian Institute of Mining and Metallurgy (AusIMM), Australian Institute of Geoscientists (AIG) and Minerals Council of Australia (MCA) as well as the Australian Securities Exchange (ASX), the Financial Services Institute of Australasia (FinSIA) and the accounting profession.

JORC Code

The Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves 2012 Edition prepared by the JORC.

Laterite

A residual soil or deposit formed by the leaching of silica from rocks under specific climatic conditions.

Leaching

The process by which a soluble metal can be economically recovered from minerals in ore by dissolution.

Life of Operation Plan

The combination of an Optimised Base Plan and incremental opportunities available to the operation for maximising value.

Marketable Coal Reserves

Represents beneficiated or otherwise enhanced coal product where modifications due to mining, dilution and processing have been considered (JORC Code).

MAusIMM

Member of the Australasian Institute of Mining and Metallurgy.

MAusIMM (CP)

Accredited Chartered Professional status of members of the AusIMM. These members have undergone an assessment of their competencies, which are maintained through continuing professional development activities.

Measured Mineral Resource

That part of a Mineral Resource for which quantity, grade (or quality), densities, shape and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit (JORC Code).

Metallurgical coal

A broader term than coking coal that includes all coals used in steelmaking, such as coal used for the pulverised coal injection process.

Mineral reserve

A mineral reserve is the economically mineable part of a measured and/or Indicated mineral resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at pre-feasibility or feasibility level as appropriate that include application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified.

Mineral Resource

A concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade (or quality), and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade (or quality), continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling. Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories (JORC Code).

Mineralisation

Any single mineral or combination of minerals occurring in a mass, or deposit, of economic interest (JORC Code).

Modifying Factors

Considerations used to convert Mineral Resources to Ore Reserves. These include, but are not restricted to, mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and governmental factors (JORC Code).

MSAIMM

Member of the Southern African Institute of Mining and Metallurgy.

Net smelter return

An estimate of revenue derived from the sale of products and concentrates following the application of metallurgical recoveries and deducting transport costs, treatment and refining charges, penalties and royalties.

OC/OP (Open-cut/open-pit/open-cast)

Surface working in which the working area is kept open to the sky.

Ore Reserve

The economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at Pre-feasibility or Feasibility level as appropriate that include application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified (JORC Code).

PEng

A licenced member of Professional Engineers of Ontario (PEO).

Physical climate risk

Physical climate risks are driven or intensified by weather, climate variability or climate change. They include acute risks, resulting from increased frequency or severity of extreme weather events (e.g., drought or flood events) and chronic risks, resulting from longer-term changes in climate patterns (e.g., sustained higher temperatures, sea level rise).

Probable Ore Reserve

The economically mineable part of an Indicated and, in some circumstances, a Measured Mineral Resource. The confidence in the Modifying Factors applying to a Probable Ore Reserve is lower than that applying to a Proved Ore Reserve (JORC Code).

Proved Ore Reserve

The economically mineable part of a Measured Mineral Resource. A Proved Ore Reserve implies a high degree of confidence in the Modifying Factors (JORC Code).

Pr.Eng.

A registered member of the Engineering Council of South Africa (ECSA).

Pr. Sci. Nat.

Professional Natural Scientist of the South African Council for Natural Scientific Professions.

Reserve Life

The scheduled extraction period in years for the Total Ore Reserves in the approved Life of Operation Plan reported to two significant figures.

ROM (Run of Mine product)

Product mined in the course of regular mining activities.

SACNASP

South African Council for Natural Scientific Professions.

Sands

Tailings produced as a by-product during beneficiation of ore.

Stockpile (SP)

An accumulation of ore or mineral built up when demand slackens or when the treatment plant or beneficiation equipment is incomplete or temporarily unable to process the mine output; any heap of material formed to create a buffer for loading or other purposes, or material dug and piled for future use.

Tailings

Those portions of washed or milled ore that are too poor to be treated further or remain after the required metals and minerals have been extracted.

Total Ore Reserves

The sum of Proved Ore Reserves and Probable Ore Reserves.

Total Mineral Resources

The sum of Inferred Mineral Resources, Indicated Mineral Resources and Measured Mineral Resources.

Transitional climate risks

Non-physical risks arising from changes to policy, technology, legal and markets as the world moves to a low-carbon energy system, in line with the Paris Agreement objectives.

UG

Underground working in which the working area is below the surface of the earth.

Yield

The percentage of material of interest that is extracted during mining and/or processing. A measure of mining or processing efficiency (JORC Code). When used in reference to the Mineral Resource estimate yield refers to the sample mass recovery following beneficiation.

Finance, marketing and general terms**AASB**

Australian Accounting Standards Board.

Adjusted return on invested capital (Adjusted ROIC)

Calculated as Underlying EBIT, adjusted for uncontrollable and one-off impacts in the current financial year, less the discount on rehabilitation provisions included in net finance cost, tax effected by the Group's prior period Underlying effective tax rate (ETR) including our material equity accounted investments on a proportional consolidated basis, divided by the sum of fixed assets (excluding any rehabilitation assets, the impairment of Eagle Downs Metallurgical Coal and Illawarra Metallurgical Coal, the impairment reversal of Brazil Aluminium, and unproductive capital associated with Growth and Life Extension projects) and inventories. Underlying EBIT is adjusted by excluding the current period impacts of foreign currency on revenue and cost, and commodity prices on revenue and associated price-linked costs, less the discount on rehabilitation provisions included in net finance cost, and tax effected by the Group's prior period Underlying effective tax rate.

AGM

Annual General Meeting.

AO

Officer of the Order of Australia.

Australian Securities and Investments Commission (ASIC)

The independent Australian Government body that is Australia's integrated corporate, markets, financial services and consumer credit regulator.

ASX

ASX Limited or Australian Securities Exchange.

ASX Listing Rules

The rules governing the listing of an entity and the quotation of its securities on the ASX.

ATSI

Aboriginal and Torres Strait Islander.

Biodiversity

Refers to the variety of life on Earth – the different animals, plants and micro-organisms, their genetic diversity and the ecosystems of which they are a part.

B-BBEE

Broad-Based Black Economic Empowerment.

BHP

BHP, formerly known as BHP Billiton, is the group of companies headed by, and including, BHP Group Ltd and BHP Group plc.

Black People

As defined in the Broad-Based Black Economic Empowerment Amendment Act 2013 (South Africa), a generic term meaning Africans, Coloureds and Indians who are citizens of the Republic of South Africa by birth or descent; or who become citizens of the Republic of South Africa by naturalisation before 27 April 1994 or on or after 27 April 1994 and who would have been entitled to acquire citizenship by naturalisation prior to that date.

Board

The Board of Directors of South32 Limited.

Catchment

The area of land from which all surface runoff and subsurface water flows through a sequence of streams, rivers, aquifers and lakes into the sea or another outlet at a single river mouth, estuary, or delta. Catchments include associated groundwater areas and might include portions of waterbodies (such as lakes or rivers). In different parts of the world, catchments are also referred to as 'watersheds' or 'basins' (or sub-basins).

CCAP

Climate Change Action Plan.

CEO

Chief Executive Officer.

CFO

Chief Financial Officer.

Community investment

Contributions made to support communities that we operate in, or have an interest in.

Our contributions to community programs comprise direct investment, in-kind support and administrative costs.

Contractor

A contractor is an employee of a company contracted by the employer to do work on its behalf and under its control with respect to location, work practices and application of health and safety standards.

Copper equivalent production

Copper equivalent production is calculated by accumulating revenue using realised prices for all operations and dividing by the price of copper.

Cost, Insurance, and Freight (CIF)

A contractual term defining responsibilities and division of cost and risk between buyer and seller, in which the seller is responsible for clearing the goods for export and bears the cost of freight and insurance to the named port of destination. The buyer assumes all risks and costs for unloading the goods and clearing the goods for import. Risk passes from seller to buyer once the goods are on board the vessel at the port of shipment.

CO₂-e

Carbon dioxide equivalent.

COO

Chief Operating Officer.

Corporations Act

Corporations Act 2001 (Cth).

Glossary of terms and abbreviations continued

Contextual water target

A contextual water target is a specific timebound target that is set to deliver an intended outcome based on the environmental and social context of the local catchment.

COVID-19

Coronavirus disease (COVID-19) is an infectious disease caused by the SARS-CoV-2 virus.

Decarbonisation

Avoiding or reducing the greenhouse gas emissions associated with an activity.

Demerger

The separation of assets from BHP effected in May 2015 to create a separate entity South32 Limited, listed on the ASX, LSE and JSE.

Dewatering

Aquifer interception and removal of water from beneath the earth's surface. Does not include the removal of sea water.

DND

Dendrobium Next Domain.

DTR

UK Financial Conduct Authority's Disclosure Guidance and Transparency Rules. A reference to DTR followed by a number is a specific rule under the DTR.

EBIT

Earnings before interest and tax.

EBITDA

Earnings before interest, tax, depreciation and amortisation.

Effective tax rate (ETR)

Income tax expense/benefit divided by profit/loss subject to tax.

Employee

Any person in full-time, part-time or casual employment engaged by South32 on a temporary or permanent basis pursuant to a contract of service.

Energy consumption

Energy consumed where we have operational control includes fuel consumed for non-combustion and combustion activities, regardless of the use, i.e. stationary or mobile purposes. Where energy is consumed to generate a secondary energy stream (for example electricity generation or transfer of unprocessed natural gas to natural gas ready for distribution), only the primary energy consumption is reported.

Environmental incident

Any event with an impact to land, biodiversity, ecosystem services, water resources or air.

ESG

Environmental, social and governance.

Employee Share Ownership Plan (ESOP) Trusts

The trusts which purchase and hold South32 Limited shares for the purpose of the South32 Equity Incentive Plans. South32 has an Australian ESOP Trust and South African ESOP Trust.

EthicsPoint

A 24/7 confidential reporting hotline that is serviced by an independent provider.

Executive KMP

Lead Team members who are classified as KMP.

External Auditor

KPMG.

Fatality

A health or safety event where an injury or occupational illness has caused the death of one or more person(s).

Free cash flow

Free cash flow represents operating cash flows including distributions received from equity accounted investments, and after interest (paid)/received, tax (paid)/received and capital expenditure.

Free On Board (FOB)

A contractual term defining responsibilities and division of cost and risk between buyer and seller, in which the seller is responsible for clearing the goods for export and loading them on board the vessel at the named port of shipment. The buyer assumes all risks and costs for goods from this moment forward including the cost of freight and insurance.

FX

Foreign exchange.

FYXX

Refers to the financial year ending 30 June 20XX, where XX is the two-digit number for the year.

Gearing

The ratio of net debt to net debt plus net assets.

GEMCO

Groote Eylandt Mining Company.

Global Reporting Initiative (GRI)

GRI is an international independent organisation that has established an international framework and standards for sustainability reporting. South32 prepares our Group-level annual Sustainable Development Report in accordance with the GRI Sustainability Reporting Standards.

Goal

The use of this term in the context of climate change in this report means an aspiration to deliver an outcome for which we have not identified a pathway for delivery, but for which efforts will be pursued towards achieving that outcome, subject to certain assumptions or conditions.

Greenhouse gas (GHG) emissions

For our reporting purposes, GHG emissions are the combined anthropogenic emissions of carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), perfluorocarbons (PFCs) and sulphur hexafluoride (SF₆). They are measured in carbon dioxide equivalent (CO₂-e). Hydrofluorocarbons (HFCs) GHG emissions are currently not relevant for our reporting purposes.

- **Scope 1 emissions** - GHG emissions from our own operations, including the electricity we generate at our sites

- **Scope 2 emissions** - Indirect GHG emissions from the generation of purchased electricity

- **Scope 3 emissions** - GHG emissions in the value chain.

HMM

Hotazel Manganese Mines.

ICMM

ICMM, previously referred to as the International Council on Mining and Metals, is an international organisation that leads through collaboration to enhance the contribution of mining and metals to sustainable development. As a corporate member, South32 commits to implementing and reporting on the ICMM Mining Principles and its Performance Expectations, which define environmental, social and governance requirements.

IMC

Illawarra Metallurgical Coal.

Indigenous, Traditional and Tribal Peoples

We use the defined term 'Indigenous, Traditional and Tribal Peoples' as per the definition and guidance set out in the Indigenous and Tribal Peoples Convention, 1989 (No. 169). We use this term inclusively to encompass the diversity of worldwide Indigenous, Traditional and Tribal Peoples, including but not limited First Nations, Native Americans, Traditional Owners, Aboriginal and Torres Strait Islander Peoples and other land-connected communities. We recognise that no single definition can fully capture the diversity of Indigenous, Traditional and Tribal Peoples.

Injury

An occupational injury occurs during a single work shift or a single exposure to an agent(s) causing an acute toxic effect, which can be identified by time and place resulting from direct contact with an object following an instantaneous event. Examples include cut, puncture, laceration, abrasion, fracture, bruise, contusion, chipping tooth, amputation, insect bite, electrocution, or a thermal, chemical, electrical or radiation burn. Sprain and strain injuries to muscles/joints/connective tissue are classified as injuries when they result from a slip, trip, fall or other similar accidents.

International Financial Reporting Standards (IFRS)

Accounting standards as issued by the IASB (International Accounting Standards Board).

JSE

Johannesburg Stock Exchange.

Just transition

A fair, equitable and inclusive social transition towards a low-carbon economy.

KMP

Key management personnel are people who have authority and responsibility for planning, directing and controlling the activities of South32 either directly or indirectly.

LBMA

London Bullion Market Association.

Lead Team

All Chief positions within South32.

Low-carbon

Refers to lower levels of GHG emissions when compared to the current state. Where used in relation to South32's products or portfolio, it refers to enhancement of existing methods, practices and technologies to substantially lower the level of embodied GHG emissions as compared to the current state.

Low-carbon aluminium

Aluminium produced in a process that results in less than 4t CO₂-e Scope 1 and Scope 2 emissions per tonne of aluminium produced.

LME

London Metal Exchange.

LSE

London Stock Exchange.

LTI

Long-term incentive.

Management roles

Management roles are leaders with an identified job grading of 13 or higher based on the requirements of their role.

Margin on third party products

Comprises Underlying EBIT on third party products and services, divided by underlying revenue on third party products and services.

Material topic

Topic that reflects a reporting organisation's significant economic, environmental and social impacts or that substantively influences the assessments and decisions of stakeholders.

Modern slavery

Modern slavery is an umbrella term referring to situations of serious exploitation that a person cannot refuse or leave because of threats, violence, coercion, deception, and/or abuse of power (Walk Free Foundation). It includes forced labour, debt bondage, forced marriage, slavery and slavery-like practices, and human trafficking and the worst forms of child labour (which means situations where children are subjected to slavery or similar practices, or engaged in hazardous work).

MRN

Mineração Rio do Norte.

Net cash

Comprises cash and cash equivalents less interest-bearing liabilities.

Net debt

Comprises interest bearing liabilities, less cash and cash equivalents.

Net operating assets

Represents operating assets net of operating liabilities which predominantly excludes the carrying value of non-material equity accounted investments, cash, interest bearing liabilities, tax balances and certain other financial assets and liabilities.

Net zero

Net zero greenhouse gas emissions are reached when anthropogenic emissions of greenhouse gases to the atmosphere are balanced by anthropogenic removals over a specified period.

No net loss

The impacts on biodiversity caused as a result of a development project/activities are balanced (so that no net loss remains) by measures taken to:

- 1) avoid, minimise and mitigate negative impacts
- 2) rehabilitate or restore affected areas
- 3) offset the residual impacts.

Occupational Exposure Limit (OEL)

The concentration of a substance or agent, exposure to which, according to current knowledge, should not cause adverse health effects nor cause undue discomfort to nearly all workers.

Occupational illness

An occupational illness is any abnormal condition or disorder, other than one resulting from an occupational injury, caused or aggravated by exposures to factors associated with employment. It includes acute or chronic illnesses or diseases which may be caused by inhalation, absorption, ingestion or direct contact.

Operational GHG emissions

Scope 1 and 2 GHG emissions from our operated assets.

Operational Leadership Team

All General Managers and Managers reporting to Vice President Operations, and all Managers reporting to General Managers at an operation. Excludes: Functional Managers (such as Human Resources, Finance and Supply).

Our people

As defined in our Code of Business Conduct, our people includes South32 Directors, executive management, employees and contractor staff (e.g., labour hire, temporary or agency staff, and secondees).

Paris Agreement

A legally binding international treaty on climate change that aims to bring all nations into a common cause to undertake ambitious efforts to combat climate change and adapt to its effects, with enhanced support to assist developing countries to do so.

Recordable injuries

The sum of work-related (fatalities + permanent impairment >30 per cent of body + lost time injuries + restricted work injuries + medical treatment injuries).

Return on invested capital (ROIC)

Calculated as Underlying EBIT, less the discount on rehabilitation provisions included in net finance cost, tax effected by the Group's prior period Underlying effective tax rate (ETR) including our material equity accounted investments on a proportional consolidated basis, divided by the sum of fixed assets (excluding any rehabilitation assets, the impairment of Eagle Downs Metallurgical Coal and Illawarra Metallurgical Coal, the impairment reversal of Brazil Aluminium, and unproductive capital associated with Growth and Life Extension projects) and inventories.

SAEC

South Africa Energy Coal.

Senior Leadership Team

Presidents and Vice Presidents reporting to members of the South32 Lead Team.

Shared value

The identification of opportunities that create economic value while also advancing the environmental and social outcomes of the communities and regions in which we operate.

SMMEs

Small, medium and micro enterprises.

South32 Equity Incentive Plan

An equity incentive plan that allows the Board to make offers to employees to acquire securities in South32 Limited and to otherwise incentivise employees.

South32, South32 Group or Group

Refers to South32 Limited and its subsidiaries and operated joint arrangements, unless otherwise stated.

S&P 500

Standard and Poor's 500.

STI

Short-term incentive.

Sustainable development

Defined as supporting the needs of the present without compromising the ability of the future generations to meet their own needs.

Target

The use of this term in the context of climate change in this report means an intended outcome in relation to which we have identified one or more pathways for delivery of that outcome, subject to certain assumptions or conditions.

TEMCO

Tasmanian Electro Metallurgical Company.

Total Recordable Injury Frequency (TRIF)

(The sum of recordable injuries x 1,000,000) ÷ exposure hours, for employees and contractors. This is stated in units of per million hours worked for employees and contractors. We adopt the United States Government Occupational Safety and Health Administration (OSHA) guidelines for the recording and reporting of occupational injuries and illnesses.

Total Recordable Illness Frequency (TRILF)

(The sum of recordable illnesses x 1,000,000) ÷ exposure hours, for employees and contractors. This is stated in units of per million hours worked for employees and contractors. We adopt the United States Government Occupational Safety and Health Administration (OSHA) guidelines for the recording and reporting of occupational injuries and illnesses.

Total Shareholder Return (TSR)

TSR measures the return delivered to shareholders over a certain period through the change in share price and any dividends paid. It is a measure used to compare our performance to that of relevant peer groups under the LTI.

Transformation

A national strategy in South Africa aimed at attaining national unity, promoting reconciliation through negotiated settlement and non-racism.

TSX

Toronto Stock Exchange.

Underlying earnings

Underlying earnings is profit after tax and earnings adjustment items. Earnings adjustments represent items that don't reflect our underlying operations. We believe that Underlying earnings provides useful information, but shouldn't be considered as an indication of, or an alternative to, profit or attributable profit as an indicator of operating performance.

Underlying EBIT

Underlying EBIT is profit before net finance costs, tax and after any earnings adjustment items, impacting profit. The underlying information reflects the Group's interest in material equity accounted joint ventures and is presented on a proportional consolidation basis. It is not an IFRS measure of profitability, financial performance or liquidity and may be defined and used in differing ways by different entities. We believe that Underlying EBIT provides useful information, but should not be considered as an indication of, or alternative to, profit or attributable profit as an indicator of operating performance.

Glossary of terms and abbreviations continued

Underlying EBIT margin

Comprises Underlying EBIT excluding third party product EBIT, divided by underlying revenue excluding third party product revenue.

Underlying EBITDA

Underlying EBIT before underlying depreciation and amortisation.

Underlying EBITDA margin

Comprises Underlying EBITDA excluding third party product EBITDA, divided by underlying revenue excluding third party product revenue.

Underlying effective tax rate (ETR)

Underlying income tax expense/benefit divided by underlying profit/loss subject to tax.

Water risk

As defined by the CEO Water Mandate, 2014; water risk is the possibility of an entity experiencing a water-related challenge (e.g., water scarcity, water stress, flooding, infrastructure decay, drought). The extent of risk is a function of the likelihood of a specific challenge occurring and the severity of the challenge's impact. The severity of impact itself depends on the intensity of the challenge, as well as the vulnerability of the actor.

Terms used in resources and reserves

A.Al₂O₃

available alumina

Ag

silver

Au

gold

Cu

copper

CV

calorific value

Fe

iron

Met

metallurgical coal

Mn

manganese

Ni

nickel

OC

open-cut/open-pit/opencast

Pb

lead

R.SiO₂

reactive silica

S

sulphur

Th

thermal coal

UG

underground

VM

Volatile Matter

Zn

zinc

Units of measure

%

percentage or per cent

A\$/t

Australian dollars per tonne

dmt

dry metric tonne

dmtu

dry metric tonne unit

g/t

grams per tonne

ha

hectare

Kcal/kg

thousand calories per kilogram

kdmt

thousand dry metric tonne

kL

kilolitre

km

kilometre

koz

thousand ounces

kt

kilotonnes

ktpa

kilotonnes per annum

kW

kilowatt

kwmmt

thousand wet metric tonnes

m

metre

ML

megalitre

Moz

million ounces

Mt

million tonnes

Mtpa

million tonnes per annum

oz

ounce

t

tonnes

tpa

tonnes per annum

tpd

tonnes per day

tph

tonnes per hour

US\$/lb

US dollars per pound

US\$/oz

US dollars per ounce

US\$/t

US dollars per tonne

Corporate directory

Group Headquarters (Registered Office)

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Share Registrars and Transfer Offices

Contact details for the Company's share registries in Australia, South Africa and the United Kingdom are included on page 183.

Information about the ADR Depositary, Transfer Agent and Registrar can also be found on page 183.

Printed copies of this Annual Report will only be posted to those shareholders who have requested a printed copy. Other shareholders are notified when the Annual Report becomes available and given details of where to access it electronically.

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